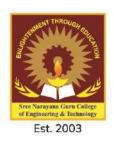
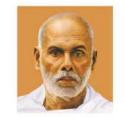


CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

### DETAILS OF CERTIFICATEVALUE ADDED COURSES DURING THE LAST FIVE YEARS





CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

### DEPARTMENT OF CIVIL ENGINEERING



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307





## 5 DAYS HANDS ON TRAINING ADVANCED QUANTITY SURVEYING

FACULTY COCORDINATORS
MS. POOJA K P
MS REVATHI P

02-05-23 TO 06-05-23 AT CE SEMINAR HALL STUDENT COORDINATORS
ANANJANA C
SREEHARI KK



Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENCINEERING & TECHNOLOGY, PAYYANDR KANNUR



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ON ADVANCED QUANTITY SURVEYING

(02/05/2023 to 06/05/2023)

### **SCHEDULE**

Day 1 -	FN- 9.00am to 12.00 pm	Inauguration
02/05/2023	AN – 1.00pm to 4.00pm	&
		Talk By
	- 1	Ms. Pooja K P
		Assistant Professor SNGCET
		TOPIC :Introduction to Quantity surveying &
		Fundamentals of QSV
Day2 -	FN- 9.00am to 12.00 pm	Expert talk by
03-/05/2023	AN – 1.00pm to 4.00pm	Mr. Sudhi
03-70372023	711 - 1.00pm to 4.00pm	Senior Faculty of IQSS
		TOPIC : Introduction to Advanced Quantity
		Surveying & importance
Day 3 -	FN- 9.00am to 12.00 pm	Expert talk by
04/05/2023	AN – 1.00pm to 4.00pm	Mr. Sudhi
04/03/2023	AN - 1.00pm to 4.00pm	Senior Faculty of IQSS
		TOPIC : Estimation of Water tank
Day 4 -	FN- 9.00am to 12.00 pm	Expert talk by
05/05/2023	AN – 1.00pm to 4.00pm	Mr. Sudhi
03/03/2023	A14 - 1.00pin to 4.00pin	Senior Faculty of IQSS
		TOPIC : Estimation of Retaining Wall
Day -5 -	FN- 9.00am to 12.00 pm	Expert talk by
06/05/2023	AN – 1.00pm to 4.00pm	Mr. Sudhi
00/00/2020	11. 1.vopii to 1.vopii	Senior Faculty of IQSS
		TOPIC : Valuation Techniques
		&

Allinging

Coordinator

New

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

May

HOI



### DEPARTMENT OF CIVIL ENGINEERING

### **WORKSHOP ON ADVANCED QUANTITY SURVEYING**

#### **SYLLABUS**

#### 1. GENERAL

- a) Tender Documents
- b) Drawings
- c) Civil & Mep Dwgs
- d) Architectural Drawing
- e) Structural Drawing
   Column Layout, Foundation Layout, Tiebeam Layout/Gf, Layout First Floor
   Frame Layout, Roof Frame, Layout Structural Details: Rein & Size
- f) Items Concrete
- g) Scope Of Works Civil Contractor
- h) Foundations
- i) Beams

#### 2. COST

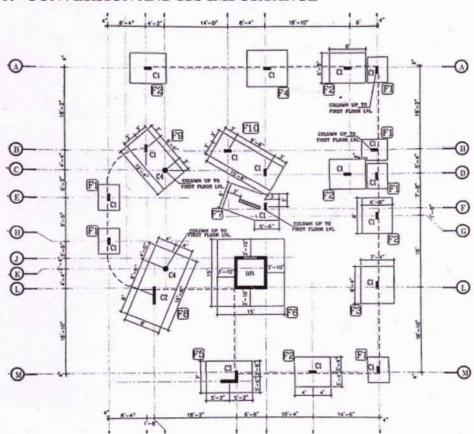
- a) Material Cost
- b) Unit Cost
- c) Labour Cost
- d) Project Cost
- e) Cost Variance

PRINCIPAL

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ENGINEERING & TECHNOLOGY, PAYYANUR

MOD

### 3. CONVERSION AND ITS IMPORTANCE



### SCHEDULE OF FOOTINGS

		REINFORCEMENT			
minn	SIZE	LONG SPA	AN STEEL	SHORT SP	AN STEEL
TYPE	(LBD)	воттом	TOP	воттом	TOP
F1	5'-8"x4'-8"x16"	Y12@6"c/c		Y12@6"c/c	
F2	6'-8"x8'-0'x20"	Y10@6"c/c		Y10@6"c/c	
F3	8'-4"x7'-4"x20"	Y10@5"c/c		Y10@5"c/c	F
F4	9'-0"x8'-0"x20"	Y12@4"c/c		Y12@4"c/c	
F5	10'-4"x7'-0"x20"	Y12@4"c/c		Y12@4"c/c	
F6	15'-0"x15'-0"x20	"Y16@5"c/c	Y16@5"c/c	Y16@5"c/c	Y16@5"c/c
F7	AS/DWG.x20"	Y12@6"c/c	Y1206"c/c	Y12@6"c/c.	Y12@6"c/c
F8	16'-6"x8'-0"x20"	Y12@4"c/c	Y1204"c/c	Y1204"c/c	Y1296"c/c
F9	12'-4"X6'-0"x20"	Y12@4"c/c	Y1204"c/c	Y12@4"c/c	Y10@4"c/c
F10	15'-8"X6'-0"x20"	Y12@4"c/c	Y12@4"c/c	Y1204"c/c	Y10@4"c/c

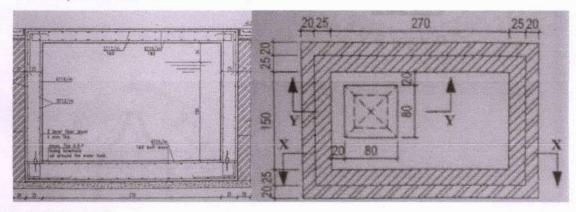
### 4. COMPOUND WALL SEQUENCE

- a. Excavation.
- b. Compaction
- c. Roadbase
- d. Compaction
- e. PCC

- f. Foundation
- g. Neck Columns
- h. Solid blocks
- i. Tie Beams
- j. Bitumen
- k. Backfilling
- 1. Hollow Block Works
- m. Stiffener Columns
- n. Coping Beam
- o. Plastering

### 5. WATER TANK

- a) Water Tank Materials
- b) Water Tank Man
- c) Machinery
- d) Sequence Water Tank
- e) Common Mistakes Reinforcement



### **SECTIONPLAN**

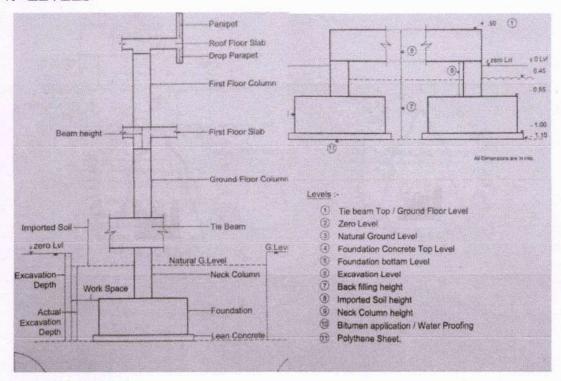
#### 6. BLOCK WORKS

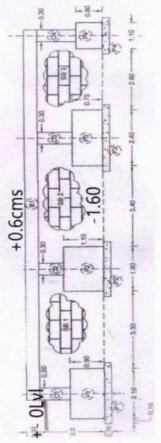
- a) Thermal Insulated
- b) Hollow Blocks
- c) Solid Blocks
- d) Horldy Blocks
- e) Autoclaved Aerated Block
- f) Bed Joint

PRINCIPAL

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### 7. LEVELS





	LEVELS	
	Ground Floor or Interlock Lvl: 0lvl	
	Tie Beam Top Level: +0.60cms	
	Foundation Bottam Level: -1.60	
	FIND OUT	
1	Excavation Bottam Level	
2	Pcc bottam Level	
3	Pcc Top Level	
4	All Foundation Bottam Level	
5	Fdn F1 Top Level	
6	Fdn F2 Top Level	
7	Fdn F3 Top Level	
8	Fdn F4Top Level	
9	Neck Column NC1 Top Level	
10	Neck Column NC2 Top Level	
11	Neck Column NC3 Top Level	
12	Neck Column NC4 Top Level	
13	Tie Beam Bottam Level	
14	Solid Block Top Level	

Coordinator

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
EMBINEERING & TECHNOLOGY, PAYYANUR
KANNUR

May

HOD



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ONADVANCED QUANTITY SURVEYING

(02/05/2023 to 06/05/2023)

Sl. No.	NAME
-1	AADITHYA KRISHNAN C
2	ABHIRAMY RAJ
3	AKASH P V
4	ANANDHU ASHOK K P
5	ANANJANA C
6	ANJALI M P
7	ANJANA C
8	ASHAYA RAMESH
9	ASWITHA GANGADHARAN
10	ATHIRA ARUN K
11	AYSHATH SAIFA
12	KRISHNA PRASAD S L
13	MUHAMMED HANNAN
14	MUHAMMED RUFAID M
15	NIKHIL SAI K
16	PRANAV A K
17	PRAYAG PRABHAKARAN
18	SACHIN SURENDRAN M
19	SHAMSHAD PV
20	SILNA M
21	SREEHARI K K

Coordinator



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ONADVANCED QUANTITY SURVEYING

### ATTENDANCE SHEET (02/05/2023 to 06/05/2023)

Sl. No.	NAME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1	AADITHYA KRISHNAN C	Ab	Ab	Sadih	Andlh	Aadh
2	ABHIRAMY RAJ	Alux	Alm	Ahr	Alm	Dh
3	AKASH P V	Ab	AR	AR	Ab	Ab.
4	ANANDHU ASHOK K P	Anady	Anay	Anady	Anada	Anady
5	ANANJANA C	Lucy	Anony	Anag	Aniga	Ang
6	ANJALI M P	In July	Agal	Angle	Age	Ang-
7	ANJANA C	dy	du	du.	By	des
8	ASHAYA RAMESH	Ash	Ayles	Ash	Ash	Ahen
9	ASWITHA GANGADHARAN	ASMIL	And	Amath	Agouth	Alimah
10	ATHIRA ARUN K	Athin	Alme	Athir	Athin	Ahhi
11	AYSHATH SAIFA	Pys	Res	Pr	Pers	Pos
12	KRISHNA PRASAD S L	Williams.	Knikhna	Knigma	Poushe	Frish
13	MUHAMMED HANNAN	Marce	W.	Home	Ab	4
14	MUHAMMED RUFAID M	Restord	Rand	Ruger	Riger	DR
15	NIKHIL SAI K	ARK.	Alk	Alt	AA	AHA
16	PRANAV A K	Prave	Pare	Pare	Prade	Padre
17	PRAYAG PRABHAKARAN	PADA	9980	1320	6000	Pas
18	SACHIN SURENDRAN M	Sur	Shine	Suce	Sme	Ab
19	SHAMSHAD PV	NeeAb	Cha	She	She	Ab

20	SILNA M	Silva Silva Silva Silva Silva	
21	SREEHARI K K	Sand Seek Seek Seek Seed	

Coordinator

HOD



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF CIVIL ENGINNERING

### Report on Advanced Quantity Surveying Workshop

Conducted by the Department of Civil Engineering

Date: 02/05/2023 - 06/05/2023

Venue: CE Seminar Hall,

Sree Narayana Guru College of Engineering & Technology

The Department of Civil Engineering at Sree Narayana Guru College of Engineering & Technology Payyanur organized a comprehensive 5-day hands-on training program on Advanced Quantity Surveying. The workshop was designed to equip participants with practical skills and knowledge in quantity surveying techniques applicable in real-world construction projects. The main objective of the workshop are to familiarize participants with advanced techniques in quantity surveying, to provide hands-on training in utilizing modern tools and software for quantity estimation, to enhance participants' understanding of cost management and budgeting in construction projects and to facilitate networking and collaboration among participants and industry experts. The training program spanned five days and included a mix of theoretical sessions, practical exercises, and interactive workshops. Each day focused on specific aspects of quantity surveying, ensuring a comprehensive understanding of the subject matter.

### Day 1: Fundamentals of Quantity Surveying

Introduction to quantity surveying principles and practices.

Measurement techniques and standards.

Overview of construction drawings and specifications.

### Day 2: Advanced Measurement Techniques

Advanced measurement methods for various construction elements.

Practical exercises using measurement tools and software.

### Day 3: Cost Estimation and Analysis

Principles of cost estimation.

Understanding of rate analysis and bill of quantities.

Practical session on preparing accurate cost estimates.

### Day 4: Software Applications in Quantity Surveying

Introduction to software tools for quantity surveying.

Hands-on training in popular quantity surveying software.

### Day 5: Case Studies and Project Presentations

Analysis of real-world case studies in quantity surveying.

Group presentations of project assignments.

Interactive session with industry experts.

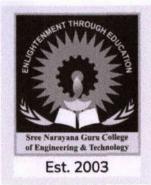
The 5-day hands-on training program on Advanced Quantity Surveying was highly successful in achieving its objectives. Participants gained valuable insights into advanced quantity surveying techniques, modern tools, and software applications. The practical exercises and interactive sessions facilitated a deeper understanding of cost estimation, measurement techniques, and project management in construction.

The Department of Civil Engineering expresses gratitude to all participants and faculty members, who contributed to the success of the training program. We

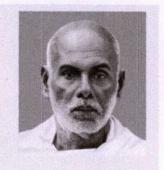
believe that the knowledge and skills acquired during the workshop will prove invaluable in the participants' professional careers and contribute to the advancement of the construction industry.

Co-Ordinator

HOD



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



### DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE OF PARTICIPATION

This is to certify that AADITHYA KRISHNAN C of SNGCET has attended the 5 day workshop on Advanced Quantity Surveying organized by the Department of Civil Engineering, Sree Narayana Guru College of Engineering & Technology held from 02-05-2023 to 06-05-2023

Co-ordinator

Head of the Department

KANNUR

Principal

Nikhil Sai K. So CE



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation			V	
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory			4	
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				

PRINCIPAL

PRINCIPAL

SKEE NARAYANA GURU COLLEGE OF

ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUR

Silva M. S&CE



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### **DEPARTMENT OF CIVIL ENGINEERING**

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Svethan K.K. S&CE



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### **DEPARTMENT OF CIVIL ENGINEERING**

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10. Did the workshop covers emerging trend or advancements in the field	9			

Krishna Prasad SL. S&CE



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

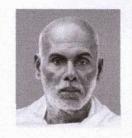
### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

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9. Rate the level of interaction between the facilitator and participants		V		
10. Did the workshop covers emerging trend or advancements in the field		V		



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

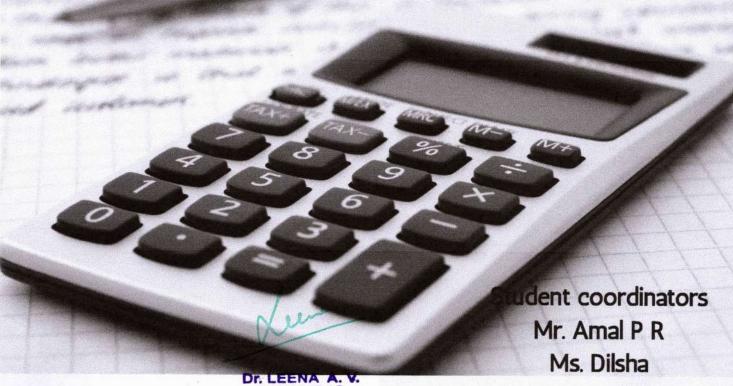


## DEPARTMENT OF CIVIL ENGINEEERING

Presents

5 day Workshop on

# COST ESTIMATION & VALUATION TECHNOLOGIES



PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

**VENUE: CE SEMINAR HALL** 

Faculty coordinators
Ms. Swathi P
Mr.Preamanand C

04-04-2022 to 08-04-2022



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP

### **SCHEDULE**

D 1	ENT 0.00 12.00	7
Day 1 –	FN- 9.00am to 12.00 pm	Inauguration
04-04-	AN - 1.00pm to $4.00$ pm	&
2022		Talk By
2022		Mr. Preamanand C
		Assistant Professor SNGCET
		TOPIC: Introduction to Quantity surveying &
		Fundamentals of QSV
Day2 –	FN- 9.00am to 12.00 pm	Expert talk by
05-04-	AN – 1.00pm to 4.00pm	Mr. Sudhi
2022	*	Senior Faculty of IQSS
2022		
		TOPIC: Advanced Measurement Techniques
Day 3 -	FN- 9.00am to 12.00 pm	Expert talk by
06-04-2022	AN – 1.00pm to 4.00pm	Mr. Sudhi
	•	Senior Faculty of IQSS
		TOPIC: Cost Estimation and Analysis
Day 4 -	FN- 9.00am to 12.00 pm	Expert talk by
07-04-2022	AN – 1.00pm to 4.00pm	Mr. Sudhi
	The second second	Senior Faculty of IQSS
		TOPIC : Software Applications in Quantity
		Surveying & Case Studies and Project
		Presentations
Day -5 -	FN- 9.00am to 12.00 pm	Expert talk by
08-04-	AN – 1.00pm to 4.00pm	Mr. Sudhi
	12. Troopin to moopin	Senior Faculty of IQSS
2022		
		TOPIC: Valuation Techniques
		&
		Closing Ceremony
		1.00
		V 1 LV

Coordinator

Dr. LEENA A. V.
PRINCIPAL
SREE HARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

HOD



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ON ADVANCED QUANTITY SURVEYING

(04/04/2022 to 08/04/2022)

#### **SYLLABUS**

#### 1. GENERAL

- a) Tender Documents
- b) Drawings
- c) Civil & Mep Dwgs
- d) Architectural Drawing
- e) Structural Drawing
   Column Layout, Foundation Layout, Tie beam Layout/Gf, Layout First Floor
   Frame Layout, Roof Frame, Layout Structural Details: Rein & Size
- f) Items Concrete
- g) Scope Of Works Civil Contractor
- h) Foundations
- i) Beams

#### 2. COST

- a) Material Cost
- b) Unit Cost
- c) Labour Cost
- d) Project Cost
- e) Cost Variance
- 3. FUNDAMENTALS OF QUANTITY SURVEYING
- 4. ADVANCED MEASUREMENT TECHNIQUES
- 5. COST ESTIMATION AND ANALYSIS
- 6. SOFTWARE APPLICATIONS IN QUANTITY SURVEYING
- 7. CASE STUDIES AND PROJECT PRESENTATIONS
- 8. COMPOUND WALL SEQUENCE
  - a. Excavation.
  - b. Compaction
  - c. Roadbase
  - d. Compaction

- e. PCC
- f. Foundation
- g. Neck Columns
- h. Solid blocks
- i. Tie Beams
- i. Bitumen
- k. Backfilling
- 1. Hollow Block Works
- m. Stiffener Columns
- n. Coping Beam
- o. Plastering

### 9. WATER TANK

- a) Water Tank Materials
- b) Water Tank Man
- c) Machinery
- d) Sequence Water Tank
- e) Common Mistakes Reinforcement

### 10. BLOCK WORKS

- a) Thermal Insulated
- b) Hollow Blocks
- c) Solid Blocks
- d) Horldy Blocks
- e) Autoclaved Aerated Block
- f) Bed Joint

Coordinator

HOD



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ON ADVANCED QUANTITY SURVEYING PARTICIPANT LIST (04/04/2022 to 08/04/2022)

Sl. No.	NAME	
1	ABHIYUKTHA P V	
2	ADARSH S V	
3	ADITHYAN D	
4	AKASH ASHOK	- 1
5	AKSHAY KRISHNAN	
6	AMAL P R	
7	AMRITHA A V	
8	ANAGHA K	
9	ANJANA T	
10	ANJIMA B P	
11	ANUSREE V	7)
12	ARJUN DEV	
. 13	ARYA RAMESH	
14	ASHMITH RAMESH	
15	AYSHA NASREEN	
16	AYSHA RIZWANA	
17	DHANUSH C P	
18	DILSHA	
19	DRISYA P V	
20	FATHIMA ABDUL KAREEM	-
21	FATHIMATHUL SANA	1
22	GOPIKA P V	Xum

23	HIBA FAROOK AYAR
24	KAVYA MANOJ
25	KIRAN K
26	LAXMI RANJITH
27	M JUMANA HASEEN
28	MITHUNA V P
29	MOHAMMED NIHAD P V
30	MUHAMMED MUHSIN T V
31	NANDITHA BABU
32	PRANAV V PRAKASH
33	RAHUL P
34	REVATHI K
35	RIYAZE KHALID
36	SAFA AMEER
37	SAFIYATH A P V
38	SAFVAN HARIS
39	SANAGHA
40	SANIKA SUJITH
41	SHAFANA SHAFI
42	SHARFANA JAFAR
43	SHAZIN SHAN
44	SHIFANA ASHRAF
45	SHIKIL K K
46	SHIRIN SADDIQ
47	SREEMAI BAIJU
48	SREYA KRISHNA K V

Coordinator

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

HOD



### DEPARTMENT OF CIVIL ENGINEERING

### WORKSHOP ON ADVANCED QUANTITY SURVEYING

### ATTENDANCE SHEET (04/04/2022 to 08/04/2022)

Sl. No.	NAME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1	ABHIYUKTHA P V	Yeekh	yeekh_	Yeckh	yeld	yeokh
2	ADARSH S V	Laterston.	Most	Morde	Adom	Adam'
3	ADITHYAN D	Alethy	Helethe	Actions	Alithor	Awy
4	AKASH ASHOK	Math	Acash	Alath	Akath	Akash
5	AKSHAY KRISHNAN	Ab .	Ab	Alita	ARK	Athrhe
6	AMAL P R	antin	A	500	Ale	Amb
7	AMRITHA A V	Amithe	Amello	Amella	Amedia	Anoth
8	ANAGHA K	Harfa	Angle	Angel	Angle	Anglo
9	ANJANA T	traine	Anjane	Ab.	АЬ	Anyan
10	ANJIMA B P	to	try	Any	Am	Am
11	ANUSREE V	D	0	-8	1	A6.
12	ARJUN DEV	Ab	Ab	Agus	Anyus	Anyes
13	ARYA RAMESH	Juga	Azye	Azya	Agge	Age
14	ASHMITH RAMESH	Februar L	and the second second	The state of the s	Ash	Ashall
15	AYSHA NASREEN	sou	AN	AN	AN	AN
16	AYSHA RIZWANA	Alp	Ags	Ap	Ays	As
17	DHANUSH C P	Bhame	Dhanud	Dhanuk	Dhamira	Dhamas
18	DILSHA	Tikha	Ticha	Don	8km	AL.
19	DRISYA P V	Mishy	Dielge	_ Dairly	Dusty	AL

20	FATHIMA ABDUL KAREEM	Fulhm	faller	Fallm	Fall	Farh
21	FATHIMATHUL SANA	Eathera	Father	Tathma	Edhna	AL
22	GOPIKA P V	Cople	Cogohe	(goph	Copte	Coople
23	HIBA FAROOK AYAR	Aila	Hila	Hiles	44	Albe
24	KAVYA MANOJ	Kentryes	taly	tally	Kady	Ab.
25	KIRAN K	Chan	Kisan	Rich	Rixan	Kidun
26	LAXMI RANJITH	Tak	Jax	Two	100	Tan
27	M JUMANA HASEEN	Myumas	Mauren	Muras	Myunes	Myudan
28	MITHUNA V P	Mille	How	Hope	dem	State
29	MOHAMMED NIHAD P V	Mohu	212	213.	Moh -	Mol
30	MUHAMMED MUHSIN T V	Muha	Munu	Muhn	Mark	Maria
31	NANDITHA BABU	Nardab	Heedle.	Neval	Abrelle	Nardin
32	PRANAV V PRAKASH	Ganay	Pararav	Prakav	Pager	Panar
33	RAHUL P	Frah	Rahl	Bahn	Raul	Ab.
34	REVATHI K	Ab	<b>B</b>	20	æ	RQ
35	RIYAZE KHALID	Robe	Ruta	Rutin	Rut	Rida
36	SAFA AMEER	Q.	Sq.	Dyn	Ab.	Sa.
37	SAFIYATH A P V	Sudy	- Safry	Satry	Sacher	Sale
38	SAFVAN HARIS	Sufra	Ab	Safri	Sagra	Jam
39	SANAGHA	Sangle	Sargh	Sarah	Sangha	Sout.
40	SANIKA SUJITH	Snika	Sanika	Sanke	Sanke	Sarika
41	SHAFANA SHAFI	Statar	Safar	Ab	Salar	Solar.
42	SHARFANA JAFAR	484	485	LRS	Rf	Rf
43	SHAZIN SHAN	Jak	Show	State	Ab	Sheer.
44	SHIFANA ASHRAF	Ab.	Shipane.	Shy22_	shift	Shiften
45	SHIKIL K K	Brike	Bloke	Bhile	Cskill	A6.

46	SHIRIN SADDIQ	8hika	Shike	Shike	Suk	Shire
47	SREEMAI BALJU	Ab	Ab	BY	Bi	82
48	SREYA KRISHNA K V	Deye	3807	Ab.	Ab	Silve

Coordinator

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### DEPARTMENT OF CIVIL ENGINNERING

5-Day Hands-On Training on Cost Estimation & Valuation Technologies

Date: 04/04/2022 - 08/04/2022

Venue: Civil Seminar Hall, SNGCET Payyanur

The Department of Civil Engineering at SNGCET Payyanur conducted a comprehensive 5-day hands-on training program on Cost Estimation & Valuation Technologies. The primary objective of this program was to provide participants with practical knowledge and skills in advanced quantity surveying techniques that are essential for effective project management in the construction industry.

#### **Program Highlights:**

### Day 1: Fundamentals of Quantity Surveying (04/04/2022)

The training commenced with an overview of quantity surveying principles and methodologies. Participants were introduced to measurement techniques and standards commonly used in the field. The session also covered an overview of construction drawings and specifications.

#### Day 2: Advanced Measurement Techniques (05/04/2022)

Participants delved into advanced measurement methods for various construction elements. Practical exercises were conducted using measurement tools and software to enhance understanding and proficiency in measurement techniques.

#### Day 3: Cost Estimation and Analysis (06/04/2022)

The focus shifted to cost estimation and analysis. Principles of cost estimation and budgeting in construction projects were discussed in detail. Participants learned about rate analysis, bill of

quantities, and engaged in practical sessions to prepare accurate cost estimates.

Day 4: Software Applications in Quantity Surveying (07/04/2022)

An introduction to software tools relevant to quantity surveying, including AutoCAD and Excel,

was provided. Participants received hands-on training in popular quantity surveying software,

enabling them to utilize these tools effectively in their projects.

Day 5: Case Studies and Project Presentations (08/04/2022)

The final day featured the analysis of real-world case studies in quantity surveying. Participants

worked in groups to analyze and present project assignments, incorporating the knowledge and

skills acquired throughout the training program. An interactive session with industry experts

provided valuable feedback and insights.

Ms. Swathi P and Mr. Premanand C (AP CE) efficiently coordinated the program, ensuring its

smooth execution. Their dedication and expertise greatly contributed to the success of the

training. Ms. Dilsha and Mr. Amal PR, student coordinators from S8 CE, played a pivotal role in

organizing and managing various aspects of the program. Their enthusiasm and commitment

were instrumental in creating a conducive learning environment

The 5-day hands-on training program on Cost Estimation & Valuation Technologies proved to

be highly beneficial for all participants. They gained practical skills and knowledge essential for

proficient quantity surveying and project management in the construction sector. The

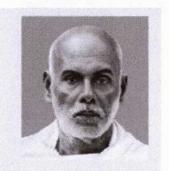
Department of Civil Engineering expresses gratitude to all faculty members, coordinators, and

participants for their active involvement and contribution to the success of the program.

Co-Ordinator



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



#### Markend

### DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE OF PARTICIPATION

This is to certify that ABHIYUKTHA P V of SNGCET has attended the 5 day workshop on COST ESTIMATION & VALUATION TECHNOLOGIES organized by the Department of Civil Engineering, Sree Narayana Guru College of Engineering & Technology held from 04/04/2022 to 08/04/2022

Co-ordinator

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Head of the Department

Principal/



### DEPARTMENT OF CIVIL ENGINEERING

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory	_			
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				



### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts	V			
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				



### **DEPARTMENT OF CIVIL ENGINEERING**

### FEEDBACK FORM

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
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4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field	$\overline{\checkmark}$			



### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?	~			
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation		$\overline{V}$		
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants	~			
10. Did the workshop covers emerging trend or				П



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



Online

WATER SYSTEM DESIG

**WORKSHOP** 

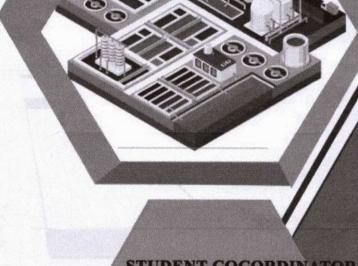
**5 DAY ONLINE TRAINING** 



06-12-21 TO 10-12-21

REGISTER NOW

FACULTY COCORDINATOR MS.ATHIRA BALAKRISHNAN MS SRUTHI DAS



STUDENT COCORDINATOR
ANAGHA K
GOKUL AMBILOTH



#### DEPARTMENT OF CIVIL ENGINEERING

#### **WORKSHOP ON WATER SYSTEM DESIGN**

#### **SCHEDULE**

DAY	TIME	TOPICS
	9.00 am to 12 pm	Inaugural session
		&
		Expert talk by
		Ms. Athira Balakrishnan
		Assistant Professor SNGCET
Day 1		Topic: Environmental Impact
		Assessment
(06/12/2021)	1.00 pm to 4.00 pm	Expert talk by
	1.00 pm to 4.00 pm	Ms. Athira Balakrishnan
		Assistant Professor SNGCET
		Assistant Professor SNOCE1
		Topic: Planning Principles Population
		and Demand Rates Demand Calculation
	9.00 am to 12 pm	Expert talk by
	Strate Andrew Control (Strate Control	Mrs. Saritha Sasindran
		Assistant Professor SNGCET
Day 2		Topic: Water Treatment Plants, Pumpin Stations
Day 2	1.00 pm to 4.00 pm	Expert talk by
(07/12/2021)		Mrs. Saritha Sasindran
(02.2.2.)		Assistant Professor SNGCET
		Topic: System Component -
		Transmission Mains And Distribution
		Systems
	9.00 am to 12 pm	Expert talk by
	V	Mrs. Saritha Sasindran
	Dr. LEENA A. V.	Assistant Professor SNGCET
9 34 8 **	PRINCIPAL SREE NARAYANA GURU COLLEGE OF	Topic: Design Hydraulic Modelling an
	ENGINEERING & TECHNOLOGY, PAYYANU	Analysis - Network Design Economic

	Calculations
1.00 pm to 4.00 pm	Expert talk by
	Dr. Leena A V
	Assistant Professor SNGCET
	Topic : Water Hammer Analysis and
	Pipe Selection Longitudinal Section,
	Valves and Appurtenances
9.00 am to 12 pm	Expert talk by
	Dr. Leena A V
	Assistant Professor SNGCET
	Topic : Water System Component
1.00 pm to 4.00 pm	Expert talk by
	Dr. Leena A V
	Assistant Professor SNGCET
	Topic: Estimation and Rate
9.00 am to 12 pm	Expert talk by
	Mrs. Shilpa Valsakumar
	Assistant Professor SNGCET
	Topic : Construction Management - Site
	Mobilization and Laydown area
	Construction Activities
1.00 pm to 4.00 pm	Expert talk by
	Mrs. Shilpa Valsakumar
	Assistant Professor SNGCET
	Topic : Valuation and Bill Payment -
	Quality Control
	9.00 am to 12 pm  1.00 pm to 4.00 pm  9.00 am to 12 pm

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

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#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON WATER SYSTEM DESIGN

(11/05/2020 to 16/05/2020)

#### **SYLLABUS**

DAY	TOPICS
	Water System - Introduction - Environmental Impact Assessment
Day 1	Planning Principles Population and Demand Rates Demand
	Calculations
	System Component - Water Treatment Plants, Pumping Stations
Day 2	Transmission Mains and Distribution Systems
	Design Hydraulic Modelling and Analysis - Network Design
Day 3	Economic Calculations Water Hammer Analysis and Pipe Selection
	Longitudinal Section, Valves and Appurtenances
Day 4	Water System Component - Estimation and Rate
	Construction Management - Site Mobilization and Laydown area
Day 5	Construction Activities - Valuation and Bill Payment - Quality
	Control

Coordinator

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENCINEERING & TECHNOLOGY, PAYYANUR
KANNUR

HOD



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON WATER SYSTEM DESIGN

(06/12/2021 to 10/12/2021)

#### LIST OF PARTICIPANTS

SL. NO.	NAME			
1	ABDHUL MUSAVVIR KASIM			
2	ADARSH S V	************		
3	AISHWARYA RASH			
4	AISWARYA P P			
5	AJEEBA	2. 2		
6	AKSHATHA KRISHNAN			
7	AMEGH P			
8	AMITHA SASIDHARAN			
9	ANAGHA K			
10	ANAGHA P			
11	ANAGHA SREEVALSAN U M			
12	ANAGHA T			
13	ANJALI K			
14	ANJANA T			
15	ANULAKSHMI P V			
16	APARNA B PREM			
17	APSARA E K			
18	AYSHA RIZWANA A K			
19	DILSHA M E			
20	GOKUL AMBILOTH			
21	GOPIKA P V			
22	HARITHA C V			
23	HRISHIKA M			
24	IRINGAKARAN RHISHI SASIDHARAN			
25	KEERTHI RAJAN			
26	MAHDIYA K V			
27	MALAVIKA JAYAKUMAR			
28	MANEESHA K V			
29	MUHAMMED SINAN M P			
30	MUHAMMED WASEEM ALI			
31	MUHSIN MUTTOON			
32	RAHID P V			
33	SAFEERA K			
34	SAYOOJYA SADANANDHAN P	Dr. LEE		
		F Tabe		

SHARFANA JAFAR

35

SREE NARAYANA G

36	SIDHIN K	
37	SNEHA P V	
38	SREERAG E N	
39	SREERAG M	
40	FATHIMA K K	

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#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON WATER SYSTEM DESIGN

#### ATTENDANCE SHEET (06/12/2021 to 10/12/2021)

SI. No.	NAME	DAY1	DAY 2	DAY 3	DAY 4	DAY 5
1	ABDHUL MUSAVVIR KASIM	P	P	P	P	P
2	ADARSH S V	P	A	P	P	P
3	AISHWARYA RASH	P	P	P	P	P
4	AISWARYA P P	A	P	P	P	A
5	AJEEBA	P	P	P	P	P
6	AKSHATHA KRISHNAN	P	A	P	P	P
7	AMEGH P	P	P	P	P	P
8	AMITHA SASIDHARAN	P	P	P	P	P
9	ANAGHA K	P	P	P	P	P
10	ANAGHA P	P	P	P	A	P
11	ANAGHA SREEVALSAN U M	P	P	A	P	P
12	ANAGHA T	P	P	P	P	P
13	ANJALI K	P	P	P	P	P
14	ANJANA T	P	P	A	P	P
15	ANULAKSHMI P V	P	P	P	P	P
16	APARNA B PREM	P	P	P	P	P
17	APSARA E K	P	P	A	P	P
18	AYSHA RIZWANA A K	P	P	P	P	P
19	DILSHA M E	P	A	P	A	P

20	COVIII AMBILOTII	P	P	P	P	P
21	GOKUL AMBILOTH		- n	- n	-	
21	GOPIKA P V	P	P	P	P	P
22	HARITHA C V	P	A	P	P	P
23	HRISHIKA M	P	P	P	P	P
24	IRINGAKARAN RHISHI SASIDHARAN	P	P	A	A	P
25	KEERTHI RAJAN	P	P	P	P	P
26	MAHDIYA K V	P	A	P	P	P
27	MALAVIKA JAYAKUMAR	P	P	P	P	A
28	MANEESHA K V	P	P	P	P	P
29	MUHAMMED SINAN M P	P	P	P	P	P
30	MUHAMMED WASEEM ALI	P	P	P	P	P
31	MUHSIN MUTTOON	P	P	P	P	P
32	RAHID P V	P	P	P	P	P
33	SAFEERA K	P	A	P	P	P
34	SAYOOJYA SADANANDHAN P	P	P	P	P	P
35	SHARFANA JAFAR	P	P	A	P	P
36	SIDHIN K	P	P	P	P	A
37	SNEHA P V	P	P	P	A	P
38	SREERAG E N	P	A	P	<b>A</b>	P
39	SREERAG M	P	P	A	P	P
40	FATHIMA K K	P	P	P	P	P

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#### DEPARTMENT OF CIVIL ENGINNERING

#### Report on Workshop on Water System Design

Date: 06/12/2021 - 10/12/2021

Venue: Online

The Department of Civil Engineering at SNGCET Payyanur organized a comprehensive 5-day online workshop on Water System Design. This workshop aimed to provide participants with insights into the design and management of water systems, focusing on various aspects such as supply, treatment, distribution, and wastewater management.

The workshop commenced with an overview of water systems, including their significance, components, and challenges. Participants gained insights into the importance of sustainable water management practices. Sessions focused on water supply sources, treatment techniques, and quality assessment. Participants learned about various treatment processes and their applications in ensuring safe and potable water supply. The workshop covered the design and analysis of water distribution systems. Participants explored hydraulic principles, network analysis, and optimization techniques for efficient water distribution. Sessions on wastewater management addressed collection, treatment, and disposal methods. Participants learned about wastewater treatment processes, regulatory requirements, and sustainable wastewater management practices.

Ms. Athira Balakrishnan and Ms. Sruthidas (AP CE) efficiently coordinated the workshop, ensuring seamless execution and engagement of participants. Their expertise and guidance were instrumental in delivering an enriching learning experience. Ms. Anagha K and Mr. Gokul Ambiloth, student coordinators from S8 CE, played a crucial role in organizing and facilitating various aspects of the workshop. Their dedication and teamwork contributed significantly to the success of the online event.

The 5-day online workshop on Water System Design provided participants with valuable insights

into the design, operation, and management of water systems. The Department of Civil Engineering extends gratitude to all faculty members, coordinators, and participants for their active participation and contribution to the success of the workshop, fostering learning and collaboration in the field of civil engineering.

Coordinator

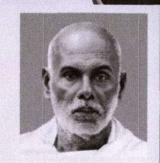
Dr. LEENA A. V.
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KANNUR

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# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



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#### DEPARTMENT OF CIVIL ENGINEERING

#### CERTIFICATE OF PARTICIPATION

This is to certify that ABDHUL MUSAVVIR KASIM of SNGCET has attended the 5 day online workshop on Water System Design organized by the Department of Civil Engineering, Sree Narayana Guru College of Engineering & Technology held

from **06/12/2021** to 10/12/2021

Co-ordinator

Head of the Department

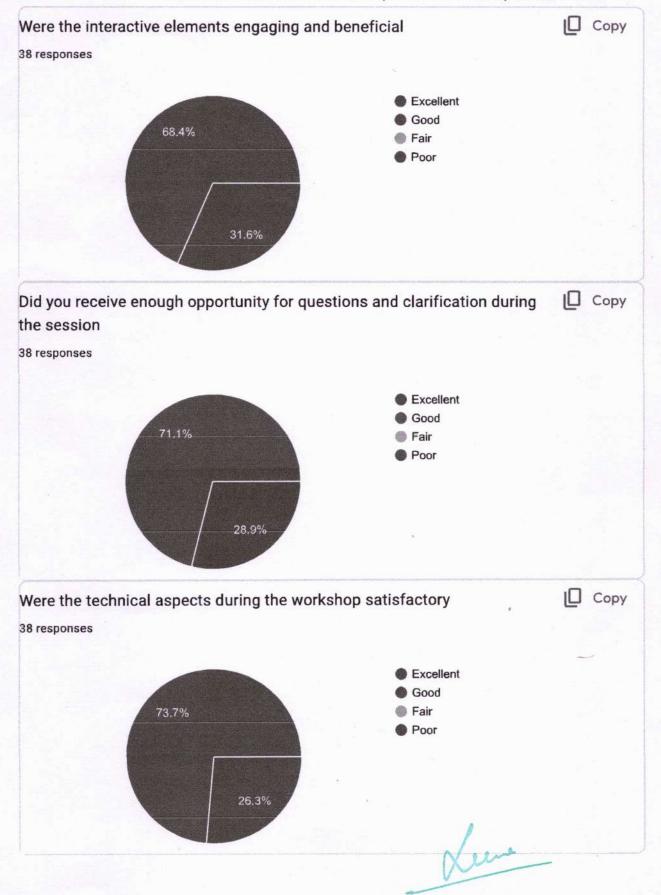
Principal Principal

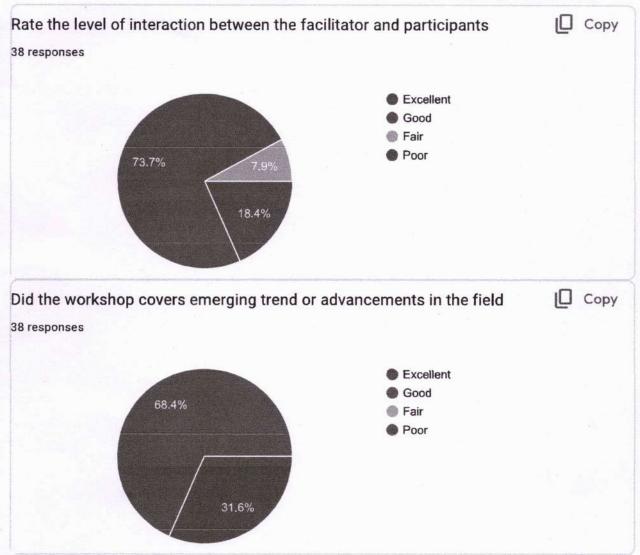
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNI IR

# WORKSHOP ON WATER SYSTEM DESIGN (06/12/2021 to 10/12/2021) FEEDBACK FORM

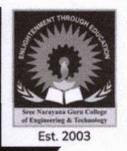
38 responses Publish analytics ☐ Copy Overall how would you rate the training class? 38 responses Excellent Good 63.2% Fair Poor Excellent 14 (36.8%) How would you rate the trainer's communication and presentation skills Opy 38 responses Excellent Good Fair 73.7% Poor 26.3%





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# **Sree Narayana Guru College** of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



# DEPARTMENT OF CIVIL ENGINEEERING

Presents

**6 DAY ONLINE TRAINING ON** 

# FUNDAMENTALS OF WATER DISTRIBUTION SYSTEM & DESIGN

JOIN ON GOOGLE MEET



11/05/2020 to 16/05/2020

Mr. Arjun M V Ms. Krishna Veni K

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

**Faculty coordinators** 

Mrs. Shilpa Valsakumar Mr. Abhishek C V



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON

#### FUNDAMENTALS OF WATER DISTRIBUTION SYSTEM & DESIGN

(11/05/2020 to 16/05/2020)

#### **SCHEDULE**

#### Day 1: Introduction to Hydronic Systems

FN - 9.00am to 12.00pm

Session 1: Overview of Hydronic Systems

Session 2: Components of Closed Hydronic Systems

AN - 1.00pm to 4.00pm

Session 3: Components of Open Hydronic Systems

Session 4: Q&A and Discussion

#### Day 2: Basics of Piping System Design

FN - 9.00am to 12.00pm

Session 1: Introduction to Piping System Design

Session 2: Basic Concepts and Principles

Session 3: Types of Pipes Used in Hydronic Systems

AN - 1.00pm to 4.00pm

Session 4: Pipe Sizing and Selection

Session 5: Q&A and Discussion

#### Day 3: Centrifugal Pumps Operation and Selection

FN - 9.00am to 12.00pm

Session 1: Principles of Centrifugal Pumps Operation

Session 2: Pump Characteristics and Performance Curves

AN - 1.00pm to 4.00pm

Session 3: Matching Pumps to Systems

Session 4: Pump Selection Criteria and Considerations

Session 5: Q&A and Discussion

#### Day 4: Terminal Unit Control and Optimization

FN - 9.00am to 12.00pm

Session 1: Introduction to Terminal Unit Control

Session 2: Understanding Control Variables

AN - 1.00pm to 4.00pm

Session 3: Control Strategies and Optimization Techniques

Session 4: Case Studies and Examples

Session 5: Q&A and Discussion

#### Day 5: Water Chiller Operation and Efficiency

FN - 9.00am to 12.00pm

Session 1: Basics of Water Chillers and Chiller Plants

Session 2: Chiller Efficiency and Energy Optimization

AN - 1.00pm to 4.00pm

Session 3: Maintenance Strategies for Chiller Systems

Session 4: Case Studies on Chiller Optimization

Session 5: Q&A and Discussion

#### Day 6: Practical Applications and Review

FN - 9.00am to 12.00pm

Session 1: Practical Demonstration: Designing a Hydronic System

Session 2: Group Presentations: Case Study Analysis

AN - 1.00pm to 4.00pm

Session 3: Review of Key Concepts and Learning Outcomes

Session 4: Participant Feedback and Suggestions

Session 5: Closing Ceremony

#### Session Handlers:

- 1. Dr. Leena A V Associate Professor SNGCET
- 2. Dr. Susan Abraham Associate Professor SNGCET
- 3. Mrs. Saritha Sasindran Assistant Professor SNGCET
- 4. Mrs. Shilpa Valsakumar Assistant Professor SNGCET

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

Coordinator

HOD



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON

#### FUNDAMENTALS OF WATER DISTRIBUTION SYSTEM & DESIGN

(11/05/2020 to 16/05/2020)

#### **SYLLABUS**

#### Water System Design Components

Introductory concepts, basic system components, heat transfer in hydronic systems and load systems.

#### **Piping System Design**

Basic considerations, design philosophy, sizing piping, and flow rate measurement.

#### Pipe Materials and Fittings

Pipe materials, corrosion, valves and fittings, backflow-prevention devices, and pipe selection.

#### **Centrifugal Pumps**

Types of pumps, pump selection and system design considerations.

#### **Terminal Unit Performance and Control**

Types of terminals, performance and control, system control characteristics, and system control configurations.

#### **Expansion Tanks and Air Elimination**

Open and closed water systems, hydronic accessories, and sizing expansion tanks.

#### **Piping System Development**

Piping system design, direct return analysis, primary-secondary analysis, types of pumps and valves, primary-secondary application study, antifreeze solutions for low temperature applications, and pumping design factors.

#### Matching Pumps to Systems

Matching the pump to the system, parallel pumping, series pumping, standby pumps, trimming pump impellers, two-speed pumping, variable speed pumping and source distribution pumping.

Water Chillers and Load Control

Basic water chiller components, refrigeration cycle, heat transfer chiller, refrigeration power, chiller types and control, chiller piping arrangements, chiller energy performance and thermal storage.

#### **Design Of Structures**

Design parameters

Coordinator

HOD



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON WATER SYSTEM DESIGN

(11/05/2020 to 16/05/2020)

#### LIST OF PARTICIPANTS

SL. NO.	NAME
1	ABIN DHAMODHAR
2	ADARSH B NAIR
3	AKHIL SURENDRAN
4	AMRITHA P
5	ANASWARA HAREENDRAN
6	ANGAJA PRAKASH
7	ANJALI V
8	ANOJA M
9	ARJUN M V
10	ASHIK K V
11	ASHIQ A K
12	DRISHYA K P
13	FATHIMA ABDHUL KAREEM
14	JITHIN KUMAR K P
15	KEERTHANA UTHAMAN
16	K NISHANA
17	KRISHNA R
18	KRISHNAVENI K
19	MIRSHAD E M
20	MUHAMMED SHAZ P
21	NADA NAZAR OVINAKATH
22	NANMA JAYARAJ
23	NASHATH JALEEL
24	NAYANA RAGHUNATH
25	NEERAJA S
26	NIKESH K
27	SREENATH PRAKASH C
28	SREE PARVATHI S
29	SUHAIRA PONNA VALAPPIL
30	SWANAM C
31	THEJAS P K
32	WASEEM ABDHUL WAHAM
33	ANURAGH M V
34	ANURANJ V K
35	AMAL RAJEN

EENA A. V.

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

36	HARIKRISHNA SATHYARAJ	
37	M P M OMER RIZVI KURIKKAL	
38	VISHNU VIMAL	
39	ARJUN BABU M	
40	K P RAMEZ	
41	PRANAV K K	

HOD



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ATTENDANCE SHEET (11/05/2020 to 16/05/2020)

Sl. No.	NAME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
1	ABIN DHAMODHAR	. Р	P	P	P	P	P
2	ADARSH B NAIR	P	A	P	P	P	P
3	AKHIL SURENDRAN	P	P	P	P	P	P
4	AMRITHA P	P	P	P	P	P	P
5	ANASWARA HAREENDRAN	P	P	P	P	P	P
6	ANGAJA PRAKASH	P	A	P	P	P	P
7	ANJALI V	P	P	P	P	P	P
8	ANOJA M	P	P	P	P	P	P
9	ARJUN M V	P	P	P	P	P	P
10	ASHIK K V	P	P	P	A	P	P
11	ASHIQ A K	P	P	P	P	P	P
12	DRISHYA K P	P	P	P	P	P	P
13	FATHIMA ABDHUL KAREEM	P	P	P	P	P	P
14	JITHIN KUMAR K P	P	P	A	P	P	P
15	KEERTHANA UTHAMAN	P	P	P	P	P	P
16	K NISHANA	P	P	P	P	P	P
17	KRISHNA R	P	P	P	P	P	P
18	KRISHNA VENI K	P	P	P	P	P	P
19	MIRSHAD E M	P	A	P	A	P	P
20	MUHAMMED SHAZ P	P	P	P	Pe	e.P	P

							_
21	NADA NAZAR OVINAKATH	P	P	P	P	P	P
22	NANMA JAYARAJ	P	A	P	P	P	P
23	NASHATH JALEEL	P	P	P	P	P	P
24	NAYANA RAGHUNATH	P	P	P	A	P	P
25	NEERAJA S	P	P	P	P	P	P
26	NIKESH K	P	P	P	P	P	P
27	SREENATH PRAKASH C	P	P	P	P	P	P
28	SREE PARVATHI S	P	P	P	P	P	P
29	SUHAIRA PONNA VALAPPIL	P	P	P	P	P	P
30	SWANAM C	P	P	P	P	P	P
31	THEJAS P K	P	P	P	P	P	P
32	WASEEM ABDHUL WAHAM	P	P	P	P	P	P
33	ANURAGH M V	P	A	P	P	P	P
34	ANURANJ V K	P	P	P	P	P	P
35	AMAL RAJE N	P	P	P	P	P	P
36	HARIKRISHNA SATHYARAJ	P	P	P	P	A	P
37	M P M OMER RIZVI KURIKKAL	P	P	P	A	P	P
38	VISHNU VIMAL	P	P	P	A	P	P
39	ARJUN BABU M	P	P	P	P	P	P
40	K P RAMEZ	P	P	P	P	P	P
41	PRANAV K K	P	P	P	P	P	P

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF CIVIL ENGINNERING

### Report on Workshop on Fundamentals of Water Distribution System & Design

Date: 11/05/2020 to 16/05/2020

Venue: Online mode / Google Meet

The Department of Civil Engineering at Sree Narayana Guru College of Engineering & Technology organized a comprehensive six-day online workshop on the "Fundamentals of Water Distribution System & Design." The workshop, conducted from May 11, 2020, to May 16, 2020, aimed to equip participants with essential knowledge and skills related to water distribution systems and their design principles. The workshop was efficiently coordinated by student coordinators Arjun M V and Krishna Veni K, along with faculty coordinators Mrs. Shilpa Valsakumar and Mr. Abhishek C V. Their dedication and guidance ensured the smooth execution of the workshop. The workshop covered a comprehensive syllabus focusing on essential aspects of water distribution systems and design principles. Participants delved into the following topics:

The components of closed and open hydronic systems.

Basic concepts of piping system design.

Different types of pipes used in hydronic systems.

Operation principles of centrifugal pumps.

Matching pumps to systems effectively.

Variables involved in terminal unit control.

Optimization techniques for water chiller operation.

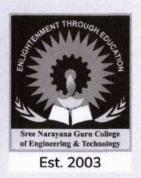
Throughout the six days, participants engaged in interactive sessions, lectures, and practical demonstrations facilitated by experienced instructors. The workshop adopted a blend of theoretical knowledge and practical applications, ensuring a holistic learning experience.

PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

The "Fundamentals of Water Distribution System & Design" workshop provided an invaluable platform for participants to deepen their understanding of water distribution systems and design principles. Through collaborative efforts and dedicated coordination, the workshop successfully equipped participants with essential skills essential for their academic and professional endeavors. The Department of Civil Engineering at Sree Narayana Guru College of Engineering & Technology continues to uphold its commitment to fostering excellence in engineering education through such initiatives

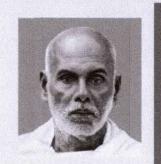
Coordinator

HOD



# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



#### DEPARTMENT OF CIVIL ENGINEERING

#### **CERTIFICATE OF PARTICIPATION**

This is to certify that AKHIL SURENDRAN of SNGCET has attended the six day online workshop on Fundamentals of Water Distribution System & Design organized by the Department of Civil Engineering, Sree Narayana Guru College of Engineering & Technology held from 11/05/2020 to 16/05/2020

Mrs. Shilpa Valsakumar

Co-ordinator

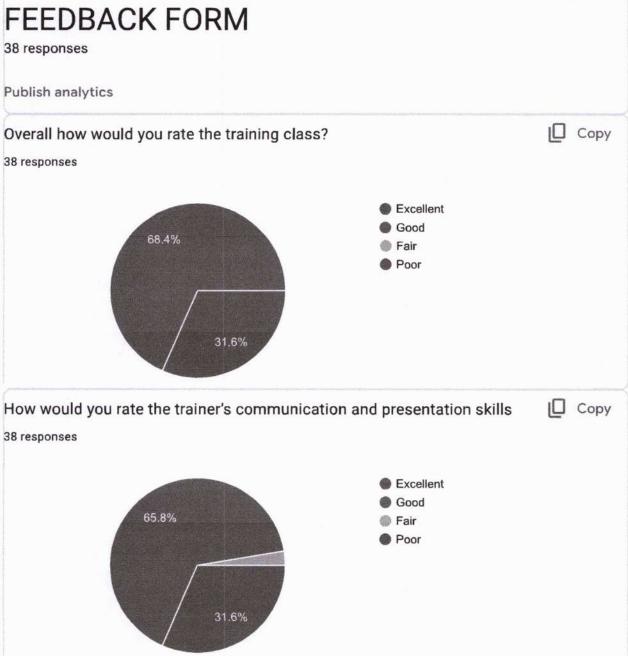
Dr. Susan Abraham Head of the Department Dr. V K Janardanan

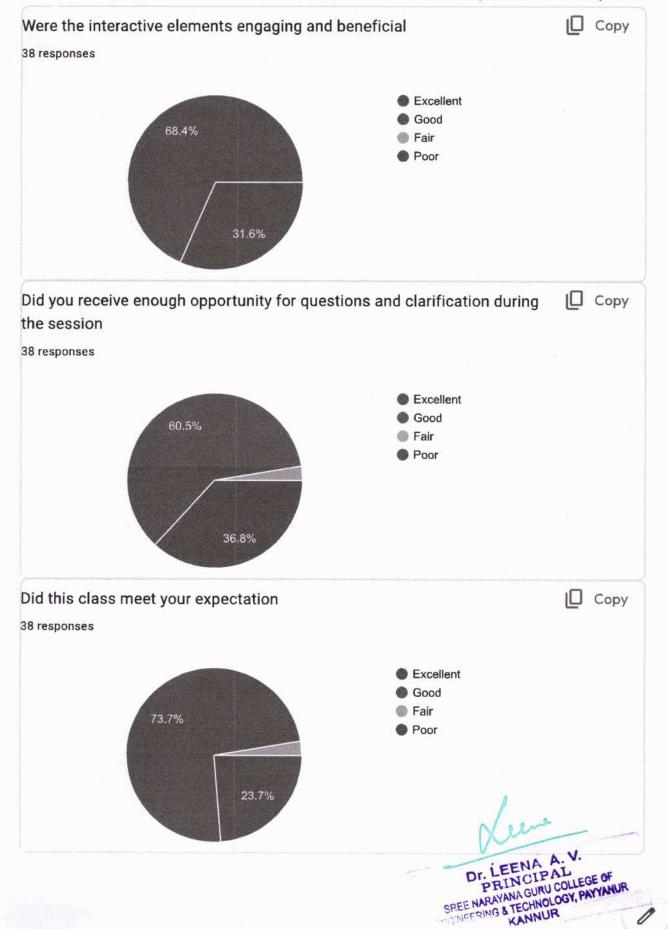
PAYYANUR

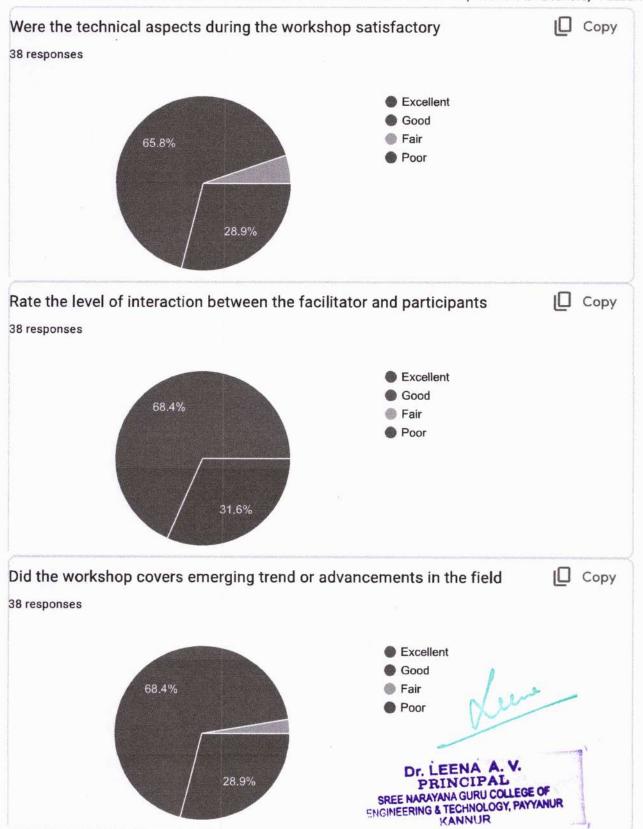
Principal

# FUNDAMENTALS OF WATER DISTRIBUTION SYSTEM & DESIGN

# WORKSHOP (11/05/2020 to 16/05/2020) - FEEDBACK FORM







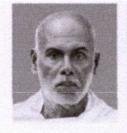
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Google Forms



# Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



# DEPARTMENT OF CIVIL ENGINEEERING

Presents

**5 DAY HANDS ON TRAINING ON** 

# ADVANCED DESIGN TECHNIQUES

**Faculty coordinators** 

**Student coordinators** 

Mr.Akhil v Mr. Abhishek C V Ms. Jinsha C P Ms. Athira K V

Venue: CE Semina RRE LAMINA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR



#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON ADVANCED DESIGN TECHNIQUES

#### **SCHEDULE**

DAY	TIME	TOPICS
	9.00 am to 12 pm	Inaugural session & Expert talk by
		Dr. Leena A V Assistant Professor SNGCET
Day 1 (15-04-2019)		Topic: Environmental Impact Assessment
(13-04-2019)	1.00 pm to 4.00 pm	Expert talk by  Dr. Leena A V
		Assistant Professor SNGCET
		Topic: Planning Principles Population and Demand Rates Demand Calculations
	9.00 am to 12 pm	Expert talk by Dr. Leena A V
Day 2		Assistant Professor SNGCET  Topic: Water Treatment Plants, Pumping Stations
(16-04-2019)	1.00 pm to 4.00 pm	Expert talk by  Dr. Leena A V
	Leve	Assistant Professor SNGCET  Topic: System Component - Transmission Mains And Distribution Systems
	9.00 am to 12 pm  Dr. LEENA A. PRINCIPAL SREE NARAYANA GURU COL ENGINEERING & TECHNOLOGY	Expert talk by  V. Dr. Leena A V  Assistant Professor SNGCET
Day 3	ENGINEERING & TECHNOLOGY, KANNUR	Topic : Design Hydraulic Modelling and Analysis - Network Design Economic

(17.04.2010)		Calculations			
(17-04-2019)	1.00 pm to 4.00 pm	Expert talk by			
		Dr. Leena A V			
		Assistant Professor SNGCET			
		Topic : Water Hammer Analysis and			
		Pipe Selection Longitudinal Section,			
		Valves and Appurtenances			
	9.00 am to 12 pm	Expert talk by			
		Dr. Leena A V			
		Assistant Professor SNGCET			
Day 4					
(18-04-2019)		Topic : Water System Component			
	1.00 pm to 4.00 pm	Expert talk by			
		Dr. Leena A V			
		Assistant Professor SNGCET			
		Topic: Estimation and Rate			
	9.00 am to 12 pm	Expert talk by			
		Mrs. Shilpa Valsakumar			
		Assistant Professor SNGCET			
Day 5		Topic : Construction Management - Site			
		Mobilization and Laydown area			
(19-04-2019)		Construction Activities			
	1.00 pm to 4.00 pm	Expert talk by			
		Mrs. Shilpa Valsakumar			
7,		Assistant Professor SNGCET			
		Topic : Valuation and Bill Payment -			
		Quality Control			
		Ç, O			

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

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#### DEPARTMENT OF CIVIL ENGINEERING

#### WORKSHOP ON ADVANCED DESIGN TECHNIQUES

#### **SYLLABUS**

DAY	TOPICS		
Day 1	Introduction – Environmental Impact Assessment - Planning Principles Population and Demand Rates Demand Calculations		
Day 2	Water Treatment Plants, Pumping Stations, Transmission Mains and Distribution Systems		
Day 3	Design Hydraulic Modelling and Analysis - Network Design  Economic Calculations Water Hammer Analysis and Pipe Selection  Longitudinal Section, Valves and Appurtenances		
Day 4	Water System Component - Estimation and Rate		
Day 5	Site Mobilization and Laydown area Construction Activities - Valuation and Bill Payment - Quality Control		

Coordinator

HOD

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUR



#### DEPARTMENT OF CIVIL ENGINEERING

#### LIST OF PARTICIPANTS

Sl. No.	NAME		
1	AISWARYA JAYAKUMAR		
2	AKSHAY C P		
3	AMAL RAJ E N		
4	ANJANA K		
5	ANUSHA M		
6	ANUSREE K		
7	ANUSREE M		
8	ANUSREE K K		
9	ARJUN BABU M		
10	ATHIRA K V		
11	ATHIRA KRISHNAN K P		
12	AYUSHRAJ P P		
13	DRISHYA K		
14	FARHANA SHERIN K		
15	FATHIMA ABDHULLA KUNHI		
16	GOPIKA G K		
17	HARIKRISHNA SATHYARAJ		
18	JINSHA C P	1	
19	JINSHARAJ K V	Xee	

21	K P RAMEZ
22	KEERTHANA N
23	M P M OMER RIZVI KURIKKAL
24	NIHITHA LOHITHAKSHAN K
25	NILUFAR FATHIMA
26	NITHIN T V
27	PRANAV K K
28	PRASHOB KRISHNAN C
29	RAZMIYATH MOHAMMED RAFI
30	SAHADA V P
31	SAHLA ABOOBACKER
32	SAHLA C A
33	SARATH P P
34	SHIFA AMEER
35	SNEHA P V
36	SREYA JAYARAJAN M K
37	SUDHINA RAJ K
38	VARNA A
39	VIDYA BALAKRISHNAN K P
40	VISHNU VIMAL

Akl.

Coordinator

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

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#### DEPARTMENT OF CIVIL ENGINEERING

#### ATTENDANCE SHEET

SI. No.	NAME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1	AISWARYA JAYAKUMAR	ALSWE	Aism	Arran	Atoma	Aiswa.
2	AKSHAY C P	-AKshay	Ala	Aken	Alask	Alaha
3	AMAL RAJ E N	Ama	Amel	Amal	Amal	Amal.
4	ANJANA K	Lugar	Ang	Anja	Angle	Angle
5	ANUSHA M	foresta	Anus	Arush	Airest	April
6	ANUSREE K	Anusree	Anuele	Anie	Anesa	Anun
7	ANUSREE M	- Hose	100	And	Asa	Andre
8	ANUSREE K K	Lin	An	Any.	Any	Any
9	ARJUN BABU M	- Boun	Haiper	Laun	Agipa	Lague
10	ATHIRA K V	Athia	Alice	Ather	Allin	After
11	ATHIRA KRISHNAN K P	Alle	Alle	AHR	Alli	Aller
12	AYUSHRAJ P P	Austr	tys	Ayusto	Agust	A6.
13	DRISHYA K	Post	Rede	Dail	De	Did
14	FARHANA SHERIN K	rap	Jad	Gash	Jast	Pad
15	FATHIMA ABDHULLA KUNHI	Father	Fall	Fallm	Fathn	Farm
16	GOPIKA G K	Cooka	Copila	Copika	Gila	Gapita
17	HARIKRISHNA SATHYARAJ -	glasin	Haid	Haris		Ab.
18	JINSHA C P	Tous	Jim	Jungh	Just	Jiston.
19	JINSHARAJ K V	Ab	Ab	da	din	fin
20	JOYSON MATHEW	30	Fot	- Jot	Ab	Ab

21	7		W	1.00		
21	K P RAMEZ	RP	RP	KP	(RE)	Ab
22	KEERTHANA N	Keesth	Keest	Keesth	Ab	Keek
23	M P M OMER RIZVI KURIKKAL	Me.	-MP	MP	MIP	-MP
24	NIHITHA LOHITHAKSHAN K	Nis	Nith	Not	Nig	Nig
25	NILUFAR FATHIMA	Ab	Nh	Nufe	A/-6	NG
26	NITHIN T V	AH	AH	AH	Ab	M
27	PRANAV K K	and a	A CONTRACTOR OF THE PARTY OF TH	a Ph	- 2	Ph
28	PRASHOB KRISHNAN C	Ab	Pa	Par	P80	Ab
29	RAZMIYATH MOHAMMED RAFI	Ran	Ab	Rzn	Rz.	Rz
30	SAHADA V P	alte	B	all	all	282
31	SAHLA ABOOBACKER	Salla	Sahle	Sahle	Ab	Ab.
32	SAHLA C A	Silk	SIR	SIB	SIR	SP
33	SARATH P P	Sasch	San	Santh	Sariff	Stati
34	SHIFA AMEER	Alifa	Ab	Shifa	Stofa	Shifa
35	SNEHA P V	Since	Souche	Saha	Side.	Side
36	SREYA JAYARAJAN M K	33049	Sey	Braye	Say	Ab
37	SUDHINA RAJ K	Rad	Ab	Sadi	Sadi	Ab.
38	VARNA A	s/asm	Varis	Vom.	Varne	Vaine
39	VIDYA BALAKRISHNAN K P	Diaga	Viaga		A6	Viaga
40	VISHNU VIMAL	18	Visc	Vice	Vid.	Vise

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### DEPARTMENT OF CIVIL ENGINNERING

### Report on Workshop on Advanced Design Techniques

Date: 15th April 2019 to 19th April 2019

Venue: CE Seminar Hall

Conducted by: Department of Civil Engineering

Faculty Coordinators: Mr. Akhil V and Mr. Abhishek C V Student Coordinators: Ms. Jisna C P and Ms. Athira K V

The Advanced Design Techniques Workshop held at Sree Narayana Guru College of Engineering & Technology from 15th to 19th April 2019, conducted by the Department of Civil Engineering, was an insightful and enriching experience for all participants. Under the adept coordination of the faculty and student coordinators, the five-day workshop provided a comprehensive hands-on training session in water system design.

The workshop aimed to equip participants with practical skills and theoretical knowledge essential for designing efficient water systems. Through a structured curriculum and hands-on activities, participants delved into various aspects of water system design, including:

Understanding water distribution networks.

Designing pipelines and pumping systems.

Hydraulic analysis and modeling.

Sustainable water management practices.

Workshop Highlights:

Expert Guidance: The workshop benefitted greatly from the expertise of Mr. Akhil V and Mr. Abhishek C V, who provided valuable insights and guidance throughout the sessions. Their indepth knowledge and experience in civil engineering enriched the learning experience for all participants.

Interactive Sessions: The workshop included interactive sessions where participants engaged in discussions, case studies, and problem-solving exercises. This interactive approach fostered a conducive learning environment and encouraged active participation from all attendees.

Hands-on Training: One of the standout features of the workshop was the hands-on training sections, where participants had the opportunity to apply theoretical concepts to real-world scenarios. This practical experience was invaluable in enhancing understanding and skill development.

Student Involvement: The involvement of student coordinators, Ms. Jisna C P and Ms. Athira K

V, played a crucial role in the success of the workshop. Their dedication, organization, and leadership skills ensured smooth proceedings and active engagement from participants.

Comprehensive Curriculum: The workshop covered a wide range of topics relevant to water system design, ensuring that participants gained a holistic understanding of the subject. From basic principles to advanced techniques, the curriculum was well-structured and comprehensive. In conclusion, the Advanced Design Techniques Workshop at Sree Narayana Guru College of Engineering & Technology was a resounding success, thanks to the meticulous planning, expert guidance, and active participation of all stakeholders. Participants emerged from the workshop with enhanced skills, practical knowledge, and a deeper appreciation for the complexities of water system design. Such initiatives play a crucial role in preparing future engineers to address the challenges of sustainable water management effectively.

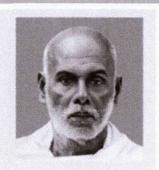
Coordinator

HOD



# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



### DEPARTMENT OF CIVIL ENGINEERING

### CERTIFICATE OF PARTICIPATION

This is to certify that AKSHAY CP of SNGCET has attended the 5 day e workshop on Advanced Design Techniques organized by the Department of Civil Engineering, Sree Narayana Guru College of Engineering & Technology

held from 15-04-2019 to 19-04-2019

Dr. LEENA A. V. PRINCIPAL SREE NARAYANA GURU COLLEGE O

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANN

Co-ordinator

Head of the Department

Principal



### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?		<b>U</b>		
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial		-		
4. Did you receive enough opportunity for questions and clarification during the session		<u>~</u>		
5. Did this class meet your expectation		-		
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF CIVIL ENGINEERING

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?	-			
2. How would you rate the trainer's communication and presentation skills		-		
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation		-		
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory		-		
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				



### **DEPARTMENT OF CIVIL ENGINEERING**

### **FEEDBACK FORM**

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?	1			
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation		V		
6. Were the hands-on activities beneficial in understanding concepts		V		
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants		V		
10. Did the workshop covers emerging trend or advancements in the field		L		



### **DEPARTMENT OF CIVIL ENGINEERING**

### FEEDBACK FORM

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial	V			
4. Did you receive enough opportunity for questions and clarification during the session				
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7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory		V		
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or		-		



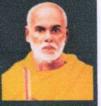
# Sree Narayana Guru College of Engineering & Technology



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

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Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

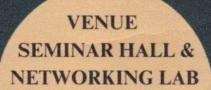
# OS INSTALLATION

WORKSHOP ON FAMILIARIZATION, ASSEMBLING, INSTALLATION UNDER THE BANNER OF CSE DEPARTMENT ASSOCIATION TECHKRITI

RESOURCE PERSONS
Mr.ROHITH M & Ms. ANUSHA M

### **EVENT COORDINATORS**

Ms.NIMISHA M K Mrs.THULASIBAI A



13/03/2023- 17/03/2023 9.30 AM - 4.00 PM





### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAY WORKSHOP ON OS INSTALLATION

### **SYLLABUS**

SL.NO:	TOPICS
	INTRODUCTION TO FUNDAMENTALS OF COMPUTER ARCHITECTURE
	Basic of Computer components and computer architecture
	Hardware and Software
1	Hardware Components
	Application software and System software
	HANDS ON SESSION ON HARDWARE COMPONENTS
2	Familiarization of hardware components
2	<ul> <li>Hands on session to know the components, how to connect each component in a system</li> </ul>
	OS INSTALLATION
	• Familiarization of various softwares
3	Computer Specification
	Introduction to operating Systems
	Installation procedure
	HANDS ON SESSION ON OS INSTALLATION
	<ul> <li>Identifying the hardware requirements</li> </ul>
	Pre installation process
4	Installation Procedure
•	Post installation task
	• Troubleshooting
	Back up Recovery
	HANDS ON SESSION ON OS INSTALLATION
5	Installation of Windows / Ubuntu



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING FIVE DAY WORKSHOP ON OS INSTALLATION

### SCHEDULE

SL.NO:	DATE	TOPICS
1	13/03/2023 9:30 AM – 4:00 PM	INTRODUCTION TO FUNDAMENTALS OF COMPUTER ARCHITECTURE
2	14/03/2023 9:30 AM – 4:00 PM	HANDS ON SESSION ON HARDWARE COMPONENTS
3	15/03/2023 9:30 AM – 4:00 PM	OS INSTALLATION
4	16/03/2023 9:30 AM – 4:00 PM	HANDS ON SESSION ON OS INSTALLATION
5	17/03/2023 9:30 AM – 4:00 PM	HANDS ON SESSION ON OS INSTALLATION



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### WORKSHOP REPORT: - FIVE DAY WORKSHOP ON OS INSTALLATION

DATE: - 13/3/2023 to 17/03/2023

**VENUE: - SEMINAR HALL** 

ORGANIZED BY: - DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING STUDENT LIST

SL.NO:	REGISTER NUMBER	NAME					
1.	SNC22CS005	ABHINAV P P					
2.	SNC22CS013	AKHIL SANTHOSH					
3.	SNC22CS015	AMARNATH BALAN C					
4.	SNC22CS017	ANUNANDA V K					
5.	SNC22CS018	ANURAG C P					
6.	SNC22CS019	ANUSREE RATHEESH					
7.	SNC22CS020	ANUSRUTHI K MANOJ					
8.	SNC22CS021	ARCHANA P V					
9.	SNC22CS024	ASWIN RAJ					
10.	SNC22CS025	AVANI C					
11.	SNC22CS027	FATHIMA HASHIM					
12.	SNC22CS031	GOPIKA V					
13.	SNC22CS032	HANNA R P					
14.	SNC22CS033	HARIKRISHNAN K					
15.	SNC22CS037	MANJIMA A N					
16.	SNC22CS041	MEGHNA MANOJ  SREE N. RAYANA GURU COLLE EMOINEERING & TECHNOLOGY, F					
17.	SNC22CS043	MOHAMMED MAZIN K V					

18.	SNC22CS045	MUBASHIR K C
19.	SNC22CS047	MUHAMMED AMRE ASHRAF
20.	SNC22CS049	NAAZ ABDUL JALEEL
21.	SNC22CS050	NANDANA K P
22.	SNC22CS052	NEHA MANU
23.	SNC22CS053	NEHA RAMESH
24.	SNC22CS056	NIHARIKA P
25.	SNC22CS057	PRITIKA NITTUR
26.	SNC22CS058	ROSLIN JIMMY
27.	SNC22CS059	SANGEERTH SAJEEV
28.	SNC22CS060	SHAHANAS CP
29.	SNC22CS063	SREEHARI M
30.	SNC22CS064	SREELAKSHMI E
31.	SNC22CS065	VYSHNA SHAJI

**EVENT COORDINATOR** 

Dr. LEENA A. V.
PINCIPAL
SREE N'RAYANA GURU COLLEGE OF
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KANNUR

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING WORKSHOP: - OS INSTALLATION ATTENDANCE SHEET

REGISTER	NAME		3-2023	1	3-2023		3-2023	-	3-2023		3-2023
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### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

WORKSHOP REPORT: FIVE DAY WORKSHOP ON OS INSTALLATION

DATE: 13/3/2023 to 17/03/2023

**VENUE: SEMINAR HALL** 

ORGANIZED BY: TECHKRITI, CSE ASSOCIATION

The five-day workshop on operating system (OS) installation was organized with the aim of providing participants with comprehensive knowledge and hands-on experience in installing operating system and familiarization on hardware components. The workshop covered a range of topics including hardware components, OS fundamentals, preparation for installation, installation procedures for different OS types, troubleshooting common issues, and postinstallation configuration.

Day 1: Familiarization of hardware components: - The first day focused on introducing participants on the basics of hardware components of a computer. Students engaged in interactive discussions and activities to reinforce their understanding.

Day 2: Hands on session on hardware components: - On Second day, the students got an hands on session to familiarize the hardware components and students were familiarized with components.

Day 3: - Talk on OS installation: - The third day, a lecture session was given to the students to get to know about the steps and procedure required for installing an OS.

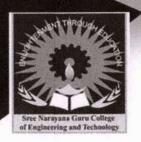
Day 4: - Hands on session on OS installation: -Fourth day was dedicated to the students for practical demonstrations and hands on exercise to ensure them how OS is installed.

Day 5: - Feedback and Response: - Last day of the workshop is provided for an interactive session to get the feedback and responses from both students and resource persons. And an online test was conducted to get the analysis of the workshop.

The five-day workshop on OS installation provides students with a comprehensive understanding of the installation process as well as to get familiarize with hardware components. By combining theoretical concepts with practical hands-on experience, students gained valuable skills that are essential in the IT industry. The workshop received positive feedback from students who expressed satisfaction with the content, delivery, and interactive nature of the sessions.

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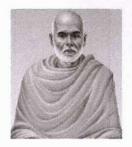
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# SREE NARAYANA GURU COLLEGE OF

### **ENGINEERING & TECHNOLOGY**

Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE



# CERTIFICATE

of participation

Presented to ABHINAV P P, S2 CSE for attending five days Work shop on OS INSTALLATION conducted by Department of Computer Science and Engineering from 13/03/2023 to 17/03/2023 at Networking Lab, SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR.

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Dr. LEFN A. V.
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ENGINEERING & TECHNOLOGY, PAYYANUF
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# A FIVE DAY WORKSHOP ON OS INSTALLATION

38 responses

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Gopika v				
Pritika Nittur				
Mubashir				
Shahanas cp				
FATHIMA HASHIM				
Roslin Jimmy				
Meghna Manoj				
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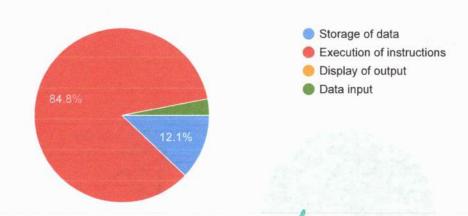
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What is the primary function of a CPU in a computer system?

Сору

33 responses

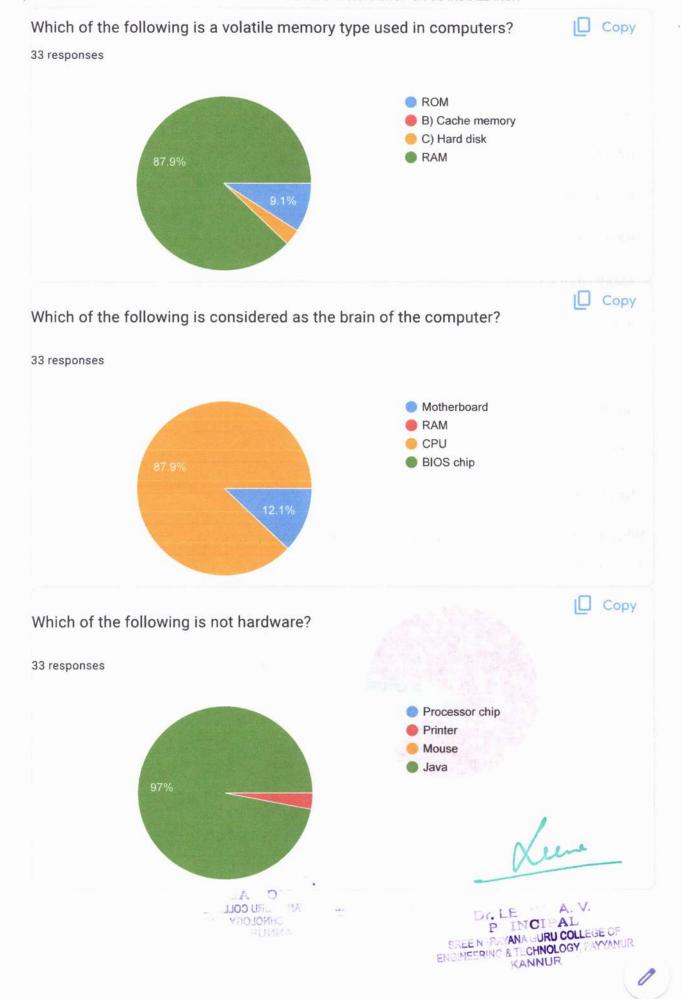


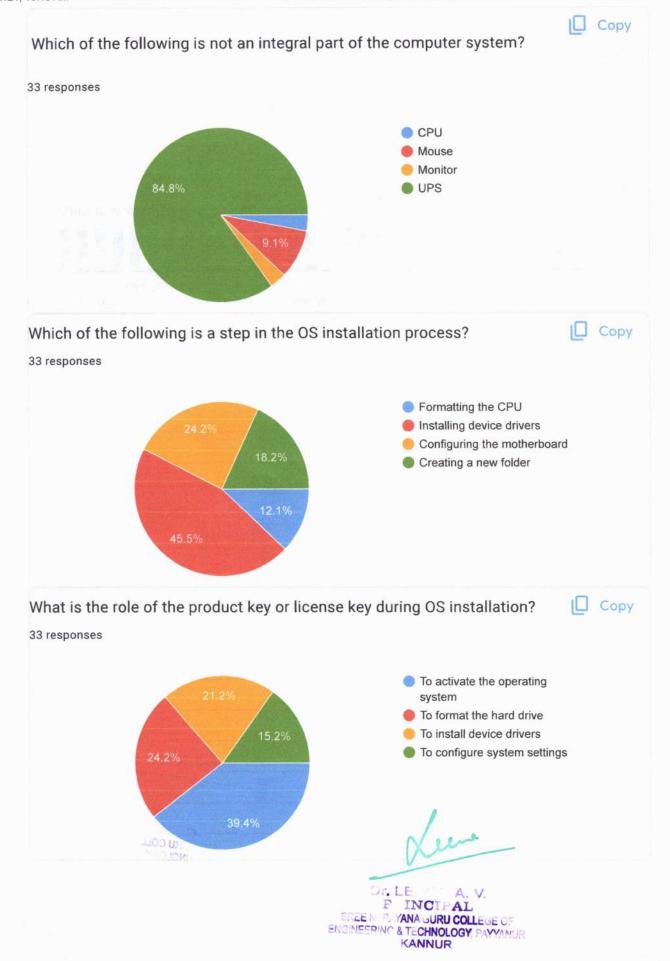
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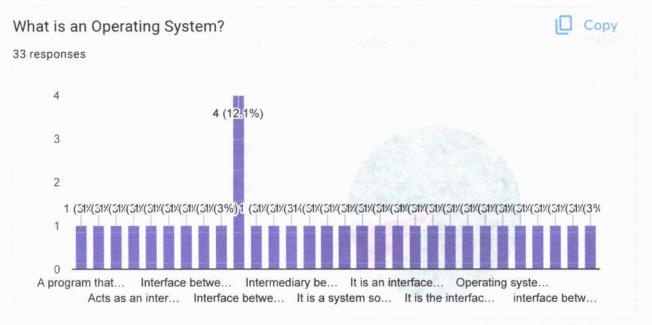
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Difference between system software and application software.

33 responses

System software is essential but application software is not essential

System software provides the platform to execute the program. Application software used to do some specific task .

System software platform depended and application software platform independent

System software provides platform to function to run application software performs the specific task

system software is used to run the system and application software is used to run specific task

System software is used run the system.

Application software is used to perform specific task.

System software runs independently, Application software needs System software to run.

System software is a general purpose software and it is use to run the system Application software specific purpose software

System Software maintains the system resources and gives the path for application software to run

Application software is built for specific tasks

system software provides foundational services and manages computer hardware and the application software performs specific tasks

A system cannot run without a system software, but system can run without application software

A system cannot run without a system software but system can run without application software.

System cannot run without a system software but system can run without application software.

System cannot run without system software but system can run without application software

System can't run without system software, system can run without application software

System can't run without system software . Application software to Perform a specific task



An application is software that fulfills a specific need or performs tasks. System software is designed to run a computer's hardware and provides a platform for applications to run on top of

Without system software program will not run and without application software program runs.

System software manages and controls the computer hardware. Application software is designed for specific tasks

system software is used to run computer hardware application software is used to run specific task

idk

System software is the interface between application software and the system. Application software is the type of software that runs as per user request.

Gives path in a software application to run

System software is a software thats is designed to run a computer hardware. Application software is a special software used to run a specific task.

System Software: System software acts as the backbone of a computer system, providing essential functionalities to enable the operation of hardware and other software.lt manages the resources and activities of the computer system, including memory management, disk management, process management, and device management. Examples of system software include operating systems (e.g., Windows, macOS, Linux), device drivers, firmware, and utility programs like antivirus software and disk defragmenters. Application Software: Application software refers to programs designed to perform specific tasks or provide specific functions for users. It is created to fulfill the needs or requirements of end-users, such as word processors, web browsers, email clients, video games, and productivity software like spreadsheet applications and graphic design tools. Unlike system software, application software is not essential for the functioning of the computer system itself but is used by users to carry out various tasks and activities.

System software is a computer programme designed to run a computer's hardware and application programs

System software is madoratary for computer. Application software is not mandatory

System can't run without system software. Application software to Perform a specific task

System software - controls basic operations of computer. Application software - performs specific tasks for users.

System can't run without System software. Application software is used for running LIOO US

tasks.

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System can't run without system software.

Application software is to perform a specific task

Application software is used to perform a specific task. System can't run without system software.

Helps in the working of computer Helps in the working of application of computer

Dr. LE A. V.
P. INCIPAL

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Difference between hardware and software

33 responses

Hardware is touchable software is not touchable

Hardware is the electromechanical device of the computer. Software is anything that tells the hardware what to do and how to do it.

Hardware have physical existence and software dont

Hardware can be touched, software can't

hardware is physical components of the computer and Software is anything that tells hardware what to do and how to do it, including computer programs and apps on your phone.

Hardware physical components of computer.

Software is anything that tells hardware what and how to do.

Hardware is the physical part and software is which instruct the computer how to do these tasks

Hardware is a physical part of the computer Software is the program which is executed by cpu

Hardware refers to the physical and visible components of the system such as a monitor, CPU, keyboard and mouse whereas software refers to a set of instructions which enable the hardware to perform a specific set of tasks

Software is the data which instructs the hardware to perform certain tasks and the hardware is a physical component

Hardware -physical part of computer.

Software - set of programs to perform specific task.

Hardware is the physical part of a computer. Software is a set of program for performing a specific task.

Hardware is the physical part of the computer. Software is the set of program to perform specific task

Hardware is physical part of the computer and software is set of program to perform specific task

Hardware is the physical part of a computer, software is the set of programs to specific tasks

Hardware is a Physical part of a computer. Software is set instruction to perform specific task.



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Hardware is any element of a computer that's physical. This includes things like monitors, keyboards, and also the insides of devices, like microchips and hard drives. Software is anything that tells hardware what to do and how to do it, including computer programs and apps on your phone

Hardware is the part something we can touch .

Hardware refers to the physical components of a computer system that we can touch. Software refers to the programs and instructions that run on the hardware

hardware is the physical part of the computer system software is the set of instruction used to run the computer system

idk

Hardware is physical components of a computer. Software is a collection of instructions.

Hardware is a physical part of the computer, it can be touched. Software it cannot be touched

Hardware is the physical component of the computer which we can touch and feel software is a set of instruction or programs which can be used to perform specific task.

Hardware refers to the physical components of a computer system, such as the processor, memory, hard drive, and peripherals like keyboards and monitors. In contrast, software refers to the programs and instructions that tell the hardware what to do, including operating systems, applications, and utility programs. Hardware is tangible and can be touched, while software is intangible and exists as code stored on hardware.

Hardware is any element of a computer that's physical and software is anything that tells hardware what to do and how to do it

Hardware is touchable parts Software is not touchable

Hardware is a Physical part of a computer. Software is set instruction to perform specific task.

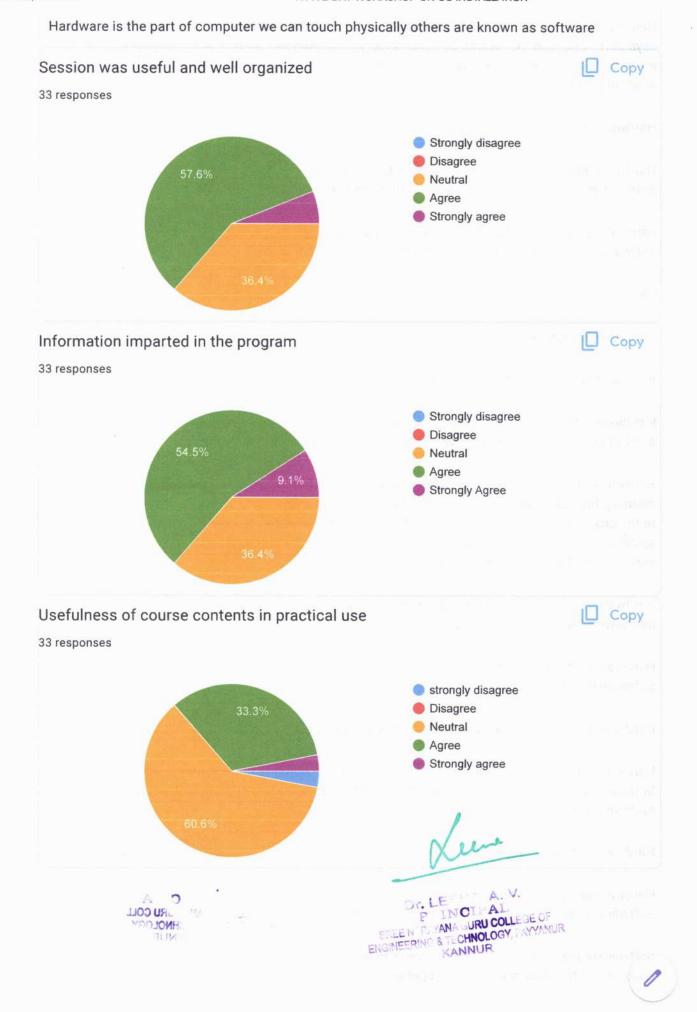
Hardware - physical components such as the monitor, keyboard, mouse etc.

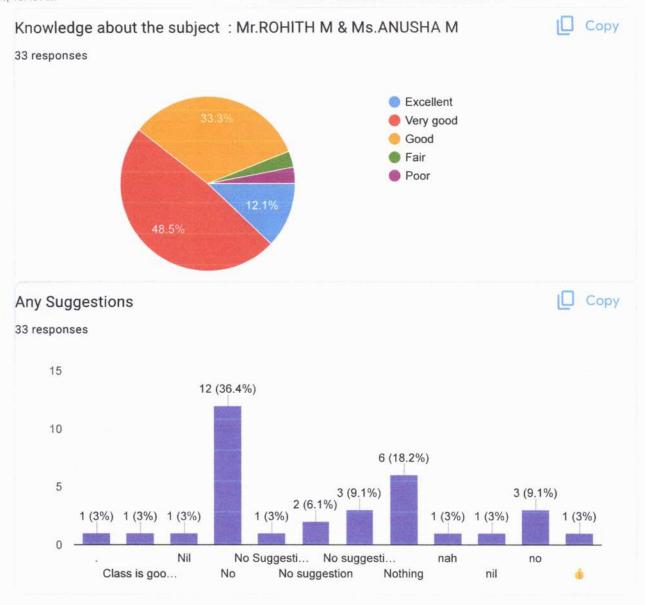
Software - programs and instructions that tell the hardware what to do, including operating systems, applications, and games.

Hardware is a physical part of computer, and software is a set of instructions to run tasks.

Hardware is a physical part of a computer. Software is set of instruction to perform specific task PINCIPAL
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Software is the set of instructions to perform specific task. Hardware is the physical part of computer.





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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# Learn LaTex

Ms. NEHA M V
AP CSE, SNGCET



EVENT COORDINATOR

Ms.VIJINA VIJAYAN

VENUE
NETWORKING LAB

16/05/2022- 20/05/2022 9.30 AM - 4.00 PM



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAY WORKSHOP ON LEARN LATEX

### **SCHEDULE**

SL. No	DATE	TOPIC
1.	16-05-2022 9:30 AM -4:00 PM	Introduction to LaTeX
2.	17-05-2022 9:30 AM -4:00 PM	Document Formatting
3.	18-05-2022 9:30 AM -4:00 PM	Mathematical Typesetting
4.	19-05-2022 9:30 AM -4:00 PM	Referencing and Citations
5.	20-05-2022 9:30 AM -4:00 PM	Advanced LaTeX Features



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAY WORKSHOP ON LEARN LATEX

### **SYLLABUS**

SI. No	TOPIC			
1.	Introduction to LaTeX			
	Basic document structure			
	Set up a LaTeX environment			
	To create a simple documents			
2.	Document Formatting			
	Text formatting			
	Page layout			
	Creating lists, tables, and figures			
3.	Mathematical Typesetting			
	How to write mathematical equations using LaTeX syntax			
	Practical examples and exercises			
4.	Referencing and Citations			
	Bibliography management using BibTeX or BibLaTeX			
	To create custom citation styles			
	Managing multiple bibliographies			
5.	Advanced LaTeX Features			
	<ul> <li>How to create templates, customizing document layouts, using packages for specialized tasks</li> </ul>			
	Collaboration using version control systems			



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### WORKSHOP REPORT: - FIVE DAYS WORKSHOP ON LEARN LATEX

DATE: - 16/05/2022 to 20/05/2022

### VENUE: - MEETING HALL & NETWORKING LAB

The five-day workshop on learning LaTeX was organized with the aim of introducing participants to the LaTeX typesetting system widely used in academic and scientific writing. The workshop covered various aspects of LaTeX, including document formatting, mathematical typesetting, referencing, and advanced features.

### Day 1: Introduction to LaTeX

The first day of the workshop focused on introducing participants to LaTeX and its advantages over traditional word processors. Basic document structure, including document classes, packages, and the LaTeX syntax, was covered. Participants learned how to set up a LaTeX environment on their computers and began creating simple documents.

### **Day 2: Document Formatting**

On the second day, the workshop delved deeper into document formatting using LaTeX. Topics included text formatting (such as fonts, styles, and alignment), page layout (margins, headers, and footers), and creating lists, tables, and figures within LaTeX documents. Participants practiced formatting exercises to reinforce their learning.

### Day 3: Mathematical Typesetting

Mathematical typesetting is one of LaTeX's strengths, and day three was dedicated to mastering this aspect. Participants learned how to write mathematical equations using LaTeX syntax, including inline math, display math, matrices, and special symbols. Practical examples and exercises helped participants gain confidence in typesetting mathematical content.

### Day 4: Referencing and Citations

The fourth day focused on managing references and citations in LaTeX documents. Participants learned about bibliography management using BibTeX or BibLaTeX, citing sources within the text, and generating a bibliography. Advanced topics such as creating custom citation styles and managing multiple bibliographies were also covered.

### Day 5: Advanced LaTeX Features

The final day of the workshop explored advanced features of LaTeX. Topics included creating templates, customizing document layouts, using packages for specialized tasks (e.g., graphics, algorithms), and collaborating on LaTeX projects using version control systems like Git. Participants also learned about online resources and communities for LaTeX users.

The workshop received positive feedback from participants, who appreciated the hands-on approach, clear explanations, and practical exercises. Many expressed confidence in using LaTeX for their future academic and professional writing projects. The organizing committee thanked the participants, instructors, and sponsors for making the workshop a success and encouraged continued exploration of LaTeX's capabilities.

Overall, the five-day workshop on learning LaTeX was a valuable learning vexperience for participants, equipping them with essential skills for producing high participants in various fields. ENGINEERING & TECHNOLOGY, PAYYANUF fields.

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### **WORKSHOP: - LEARN LATEX**

### STUDENT ENROLLED LIST

REGISTER NO.	NAME				
SNC19CS001	AATHISH P JAGADEESH				
SNC19CS002	ABHINAV.A.P				
SNC19CS003	AHMED ADIL				
SNC19CS004	AJMAL				
SNC19CS005	ALTHAF ASHRAF.K.V				
SNC19CS015	HRYSHIKA PRADEEP				
SNC19CS016	JEEVA NARAYANAN				
SNC19CS017	KAVYA DEVI.M.K				
SNC19CS018	MANILA MAHESH				
SNC19CS019	MEGHA.P.K				
SNC19CS034	SREENANDANA.T.V				
SNC19CS035	SREENISHA.K.P				
SNC19CS036	THANMAYA SANJEEV				
SNC19CS037	THANYA MOHAN				
SNC19CS038	THEJA RAJESH				
SNC19CS042	VISHNU.R				
SNC19CS043	V.K.AYSHA	Xeen			
LSNC19CS044	ABHIJITH RAMRAJ P K				
LSNC19CS046	JIJO JAISON	Dr. LEENA A. V.			
LSNC19CS045	ADARSH KS	SREE NARAYANA GURU COLLEGE ENGINEERING & TECHNOLOGY, PAYY KANNUR			

Event Coordinatur

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### **WORKSHOP: - LEARN LATEX**

### ATTENDANCE SHEET

REGISTER NO.	NAME	16/05/2022	17/05/2022	18/05/2022	19/05/2022	20/05/2022
REGISTER NO.	NAME					
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SNC19CS002	ABHINAV.A.P	Ahme	Alhun	Abhus	Alha	Alle
SNC19CS003	AHMED ADIL	h	A.	fe	An	EL
SNC19CS004	AJMAL	Jul	Agol	And	Agul	And
SNC19CS005	ALTHAF ASHRAF.K.V	AHQ	AHAD	AUGO	AND	Alle.
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SNC19CS017	KAVYA DEVI.M.K	Karris	KAR	Kary	Kay	Kany
SNC19CS018	MANILA MAHESH	(D)	A P	D	100	M.
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SNC19CS034	SREENANDANA.T.	-See	Sm	Some_	Som	Snu
SNC19CS035	SREENISHA.K.P	Sau	Su	Su	Seu	Su
SNC19CS036	THANMAYA SANJEEV	M.	M.	A	69	Ø.
SNC19CS037	THANYA MOHAN	2h	da	dh	dh	dh
SNC19CS038	THEJA RAJESH	They	They	They	Theys.	Theyo.
SNC19CS042	VISHNU.R	Ver	Las	Ve	V	V
SNC19CS043	V.K.AYSHA	Ayela	Ayda	Jugan	Jughe	Jan
LSNC19CS044	ABHIJITH RAMRAJ P K	A	ARA	ART .	AM	ARA
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Vijina Vijayan Event Coordinator Smonth



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# CERTIFICATE

of participation

**THANMAYA SANJEEV** 

Presented to ......

...... for attending five days Workshop on LEARN LATEX

conducted by the Department of Computer Science and Engineering from 16/05/2022 to 20/05/2022.

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Vijina Vijayan

Dr. LEENA A. V.
PRINCIPAL

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ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

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Name: Hryshika

Roll No: - 5NC19 (5015



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

### ASSESSMENT AND FEEDBACK FORM

- 1. What is the purpose of LaTeX in document preparation?
  - a) To create spreadsheets
  - b) To typeset complex documents with mathematical equations & technical content
  - c) To edit images and graphics
  - d) To create animations
- 2. Which command is used to compile a LaTeX document into a PDF format?
  - a) pdftex
  - b) latexmk
  - c) compilelatex
  - d) maketex
- 3. Which LaTeX environment is suitable for writing research papers, reports, and academic articles?
  - a) article
  - b) book
  - c) memoir
  - d) report
- 4. Were the workshop topics relevant and informative?
  - a) Very Relevant
  - b) Relevant
  - Somewhat Relevant
  - d) Not Relevant
- 5. Which topics did you find most valuable or interesting?
  - a) Introduction to LaTeX
  - b) Document Formatting
  - c) Mathematical Typesetting
  - d) Referencing and Citations
  - e) Advanced LaTeX Features MAA
- 6. How would you rate the instructors' knowledge and expertise in teaching LaTeX?
  - a) Excellent
  - b) Very Good
  - c) Good
  - d) Fair
  - e) Poor

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- 7. How would you rate the overall organization of the workshop?
  - a) Excellent
  - b) Very Good
  - c) Good
  - d) Fair
  - e) Poor
- 8. How would you rate the overall organization of the workshop?
  - a) Excellent
  - b) Very Good
  - c) Good
  - d) Fair
  - e) Poor
- 9. How satisfied are you with the overall workshop experience?
  - a) Excellent
  - b) Very Good
  - c) Good
  - d) Fair
  - e) Poor

### 10. Additional Comments:

Please share any additional comments, suggestions, or feedback about the workshop.

PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

### ASSESSMENT AND FEEDBACK FORM

- 1. What is the purpose of LaTeX in document preparation?
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- 4. Were the workshop topics relevant and informative?
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- 5. Which topics did you find most valuable or interesting?
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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANDE

- 7. How would you rate the overall organization of the workshop?
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Please share any additional comments, suggestions, or feedback about the workshop.

DR. LEENA A. V.
PRINCIPAL
REE NARAYANA GURULOOU

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR Name: Ahmed Adil Roll No: - 5NC19C5003



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### FIVE DAYS WORKSHOP ON LEARN LATEX

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Dr. LEENA A. V. PRINCIPAL SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

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DI. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Name: Thanyer Mohan

Roll No: - SNC19C8037



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

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  - e) Poor

Dr. LEENA A. V. PRINCIPAL SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

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--	----------------------------

- a) Excellent
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  - c) Good
  - d) Fair
  - e) Poor

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- a) Excellent b) Very Good
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  - e) Poor

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Dr. LEEN A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF

ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



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Dr. LEENA A. V. PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR.

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  - e) Poor

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Dr. LEEN A A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR



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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANDA

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  - C Good
  - d) Fair
  - e) Poor
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Dr. LEENA A. V. PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANDA
KANNUR

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Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHTOLOGY, PAYYANUR
KAN J.

7. How would you rate the overall organization of the workshop? a) Excellent b) Very Good (e) Good d) Fair e) Poor 8. How would you rate the overall organization of the workshop? a) Excellent b) Very Good e) Good d) Fair e) Poor 9. How satisfied are you with the overall workshop experience? a) Excellent b) Very Good c) Good d) Fair e) Poor 10. Additional Comments: Please share any additional comments, suggestions, or feedback about the workshop. Dr. LEENA A. V. PRINCIPAL SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
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KANNUR

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

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Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUR

Name: THANMAYA SAN JEEV

Roll No:- 5NC1965036



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
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KANNUR

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Name: Mogha PK

Roll No:- SNC 19 CSO19



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

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Dr. LEENA A. V.
PRINCIPAL

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ENGINEERING & TECHNOLOGY, PAYYANUR

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PRINCIPAL

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF

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### 10. Additional Comments:

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Please share any additional comments, suggestions, or feedback about the workshop.

DY, LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Name: Excepandana T.V Roll No:- SNC19.05034



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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  - y memoir
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- 4. Were the workshop topics relevant and informative?
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- 5. Which topics did you find most valuable or interesting?
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  - b) Document Formatting
  - c) Mathematical Typesetting
  - d) Referencing and Citations
  - e) Advanced LaTeX Features
- 6. How would you rate the instructors' knowledge and expertise in teaching LaTeX?
  - a) Excellent
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    - c) Good
    - d) Fair
    - e) Poor

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

- 7. How would you rate the overall organization of the workshop?
  - a) Excellent
    - b) Very Good
    - c) Good
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    - e) Poor
- 8. How would you rate the overall organization of the workshop?

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- 9. How satisfied are you with the overall workshop experience?
  - a) Excellent
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- 10. Additional Comments:

Please share any additional comments, suggestions, or feedback about the workshop.

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

### ASSESSMENT AND FEEDBACK FORM

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

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PRINCIPAL SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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PRINCIPAL
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SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

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Please share any additional comments, suggestions, or feedback about the workshop.

PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

Name: Kavya Devi MK

Roll No: - SNC19CSOIT



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

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Dr. LEENA A. V.

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

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Please share any additional comments, suggestions, or feedback about the workshop.

PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

Name: ABHINAN AP

Roll No: - SNC19C8002



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### FIVE DAYS WORKSHOP ON LEARN LATEX

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PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

7.	How w	ould you	rate the	overall	organization	of the	workshop?
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Please share any additional comments, suggestions, or feedback about the workshop.

PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUR

Name: Authish P Jagadecsh.

Roll No: - SNC19CSODI



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### FIVE DAYS WORKSHOP ON LEARN LATEX

#### ASSESSMENT AND FEEDBACK FORM

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Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUH

Name: Althouf Astraf

Roll No: - SNC19 0005



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### FIVE DAYS WORKSHOP ON LEARN LATEX

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SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR

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Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# ONLINE PYTHON WORKSHOP

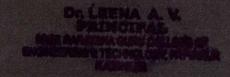
RESOURCE PERSONS



Mr. Sunder V Assistant Professor, SNGCET



Mrs. Sharija P Assistant Professor, SNGCET



**EVENT COORDINATOR** 

Ms. Jithika K M Assistant Professor SNGCET VENUE
Google Meet

01/03/2021- 05/03/2021 9.00 AM - 4.00 PM



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING FIVE DAY ONLINE WORKSHOP ON PYTHON

#### **SCHEDULE**

SL.NO:	DATE	TOPICS
-1	01/03/2021 9:00 AM – 4:00 PM	Introduction to Python
2	02/03/2021 9;00 AM – 4:00 PM	Installation of Python
3	03/03/2021 9:00 AM – 4:00 PM	Basics of BS- python shell
4	04/03/2021 9:00 AM – 4:00 PM	Introduction to list
5	05/03/2021 9:00 AM – 4:00 PM	Coding Challenges



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING

#### & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINNERING

#### Online Workshop on Python

#### **SYLLABUS**

SI. No	Topic	34
	Introduction to Python	
	Python data types	
1	Python basic syntax	
1	popular libraries in python	
	Software used in python and organizations used python	
	bottware about in python and organizations about python	
	Installation of Python	
2	How to install pycharm	
	Installation and configuration of pycharm	
	Introduction to pycharm	
	Basics of BS- python shell	
	Basic concepts of python shell	
3	installation of python	
	control structure	
	<ul> <li>looping statements used in python</li> </ul>	
	Introduction to list	
	CS list	
4	various list functions	
	<ul> <li>range, cs for loop</li> </ul>	
	<ul> <li>Functions used in python</li> </ul>	
5	Coding Challenges	



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### PYTHON ONLINE WORKSHOP STUDENT LIST

VENUE: GOOGLE MEET
DATE: 01/03/21 to 05/03/21

SL NO.	REG NO.	NAME		
1	SNC20CS001	AARDRA PRASANTH		
2 SNC20CS002		AATHISH R		
3	SNC20CS003	АВНІЛІТН А		
4	SNC20CS004	ABHINAV A V		
5	SNC20CS010	AMAL M.V		
6	SNC20CS011	ANAGHA ANILKUMAR		
7	SNC20CS012	ANAGHA P P		
8	SNC20CS017	ARJUN M		
9	SNC20CS018	ASWATHI PI		
10 SNC20CS022		GOPIKA PRAMOD KUMAR		
11 SNC20CS023		G P THRISHNA		
12	SNC20CS024	HAMNA SHERIN A		
13	SNC20CS025	HIMA MURALI K		
14	SNC20CS030	MOHAMMED ZAYISH THAYYIL		
15	SNC20CS031	MRUDHUNA MANOJ K		
16	SNC20CS032	MUHAMMED ANSAR SAFER		
17	SNC20CS033	NANDANA M.V		
18	SNC20CS037	RIYA RAJESH		
19	SNC20CS038	OCS038 SAFA ACHIRETHARAMMAL KURUKKAN		
20	SNC20CS042	VISWAJEETH P		



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### PYTHON ONLINE WORKSHOP ATTENDANCE SHEET

VENUE: GOOGLE MEET
DATE: 01/03/21 to 05/03/21

SESSION: 9:00 AM - 4:00 PM

SL NO.	REG NO.	NAME	01-03-2021	02-03-2021	03-03-2021	04-03-2021	05-03-2021
1	SNC20CS001	AARDRA PRASANTH	×	X	X	X	X
2	SNC20CS002	AATHISH R	×	×	×	Х	X
3	SNC20CS003	АВНІЛІТН А	X	×	×	×	X
4	SNC20CS004	ABHINAV A V	×	×	X	X	×
5	SNC20CS010	AMAL M.V	×	×	×	×	×
6	SNC20CS011	ANAGHA ANILKUMAR	X	×	X	×	X
7	SNC20CS012	ANAGHA P P	X	X	×	×	×
8	SNC20CS017	ARJUN M	×	×	×	×	×
9	SNC20CS018	ASWATHI PI	×	*		×	×
10	SNC20CS022	GOPIKA PRAMOD KUMAR	×	×	×	X	X
11	SNC20CS023	G P THRISHNA	X	×	X	X	X
12	SNC20CS024	HAMNA SHERIN A	×	X	*	X	X
13	SNC20CS025	HIMA MURALI K	X	X	×	X	×
14	SNC20CS030	MOHAMMED ZAYISH THAYYIL	X	X	×	X	× .
15	SNC20CS031	MRUDHUNA MANOJ K	X	×	X	×	×
16	SNC20CS032	MUHAMMED ANSAR SAFER	×	X	×	×	×
17	SNC20CS033	NANDANA M.V	×	X	×	×	×
18	SNC20CS037	RIYA RAJESH	×	×	X	X	*
19	SNC20CS038	SAFA ACHIRETHARAMMAL KURUKKAN	×	×	×	×	X
20	SNC20CS042	VISWAJEETH P	×	×	×	×	X

Event Co-ordinator

Dr. LEENA A. V.
PRINCIPAL
SREE HARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Hap



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ONLINE WORKSHOP REPORT: FIVE DAYS WORKSHOP ON PYTHON

DATE: 01/03/2021 to 05/03/2021

**VENUE: SEMINAR HALL** 

ORGANISED BY: TECHKRITI, CSE ASSOCIATION

The five days online workshop on python was organized with the aim of providing partcipants with comprehensive knowledge and gand-on experience in python. The online workshop covered a range of topics installation of python, basic concepts of python and BS- python shell, cs- list and functions used in python.

Day 1: Introduction of Python: The first day focused on basics of python. Students engaged in interactive discussion and activities to reinforce their understanding in online.

Day 2: Installation of python: The second day, the students got an hands on session for pycharm installation.

Day 3: Introduction to BS- python shell: The third day a lecture session was given to the students to get to know about the basics of python shell.

Day 4:The session about the CS-list: Fourth day, was dedicated to the students for practical demonstrations and exercise to ensure them how to develop a python program with cs list.

Day 5: Feedback and response: Last day of the online workshop is provided for an interactive session to get the feedback and responses from students through online.

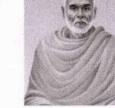
The five day online workshop provided students with a understanding of the basics of python language. By combining theoratical concepts and practical session through online is worth for the students.

Dr. LEENA A. V.
PRINCIPAL
MADAYANA GURU COLLEGE

ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

PAGE 1 OF 2





Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE

# CERTIFICATE

of participation

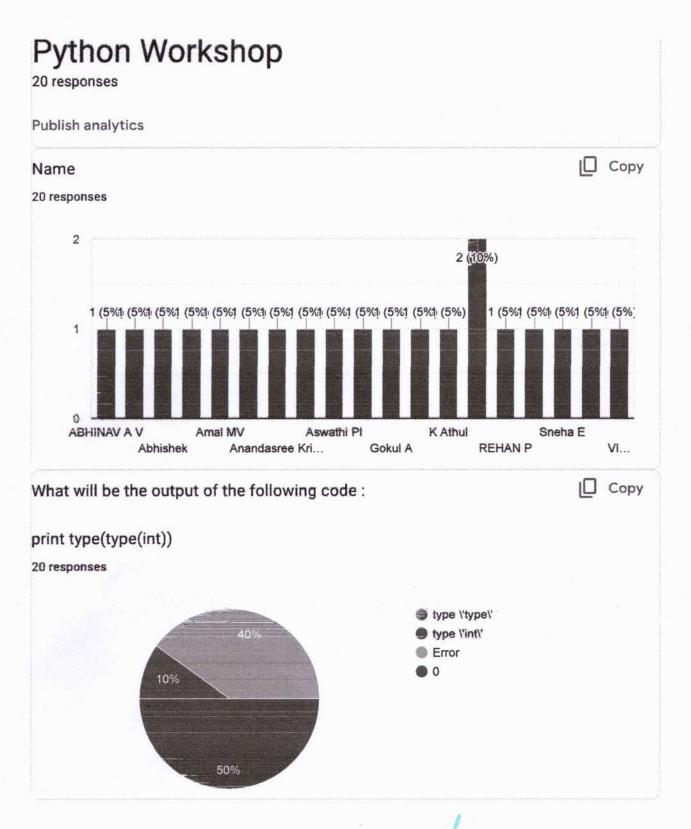
Presented to. AARDRA PRASANTH, S2 CSE for attending five days online Work shop on Python conducted by Department of Computer Science and Engineering from 01/03/2021 to 05/03/2021 at SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR.

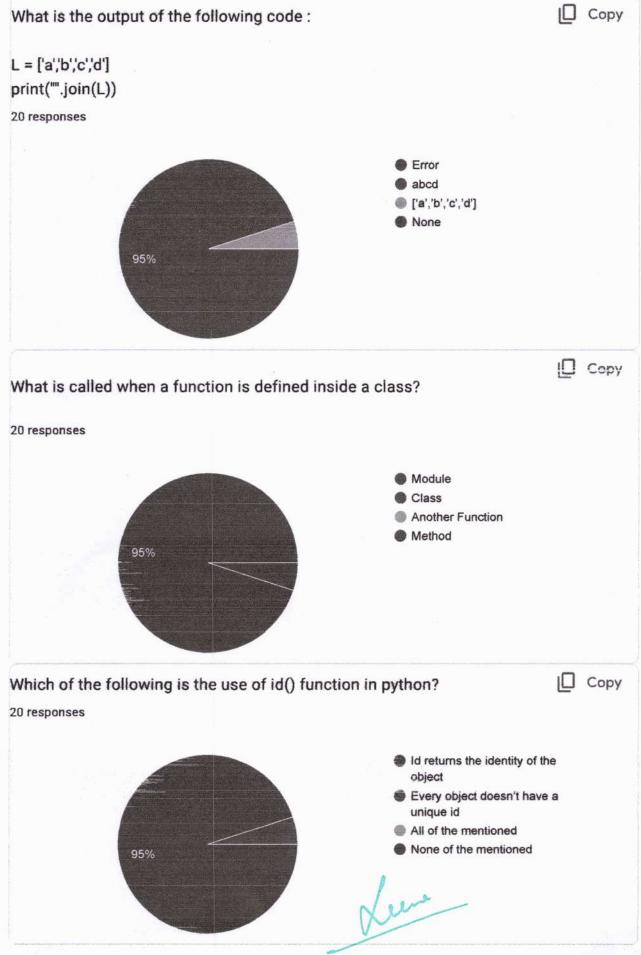
John

Ms. Jithika K M
COORDINATOR

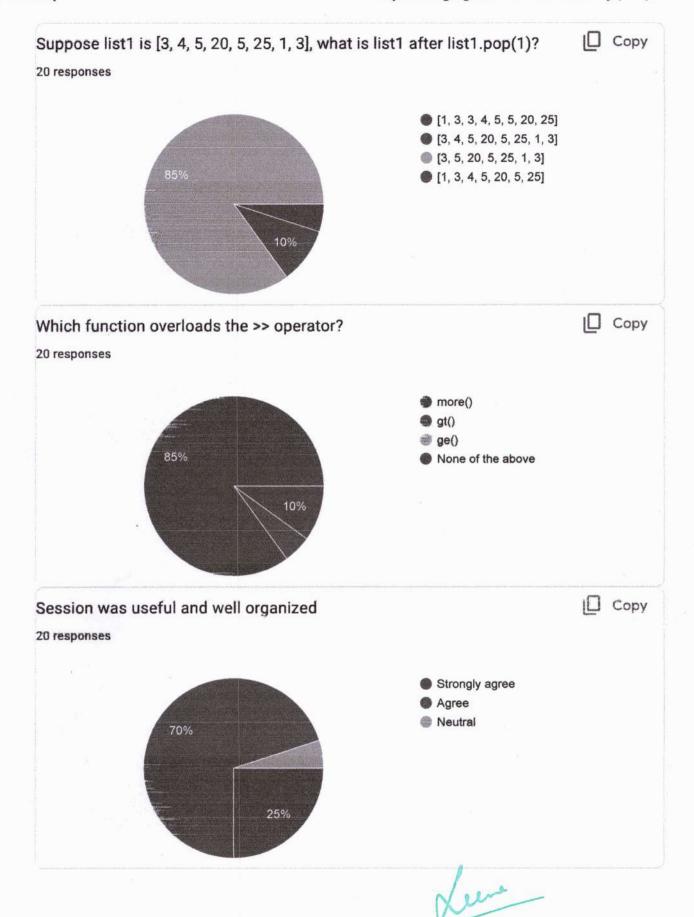
Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

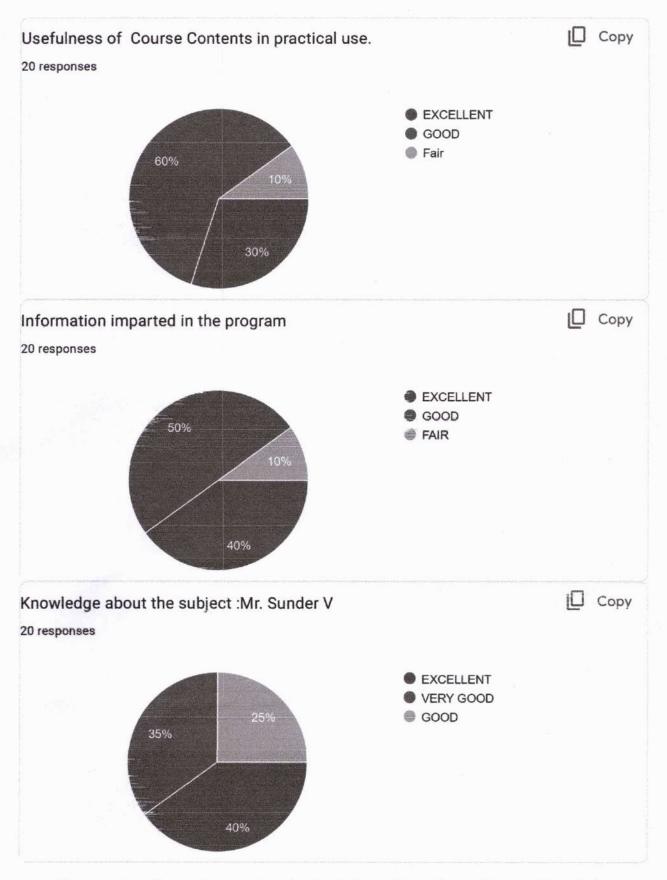
Mr. Sujith D K











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Google Forms







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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Online Workshop on
Trending Perspectives of AI in
Robotics

**RESOURCE PERSONS** 



Mr. Sunder V Assistant Professor, ASIET, Kalady



Mrs. Gripsy Paul Mannickathan Assistant Professor, ASIET, Kalady

**EVENT COORDINATOR** 

Ms. Sreeraji Narayanan Assistant Professor SNGCET VENUE
Google Meet
07/04/2020 - 11/04/2020

10 am - 4 pm



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### FIVE DAY ONLINE WORKSHOP ON TRENDING PERSPECTIVE OF AI IN ROBOTICS

#### **SCHEDULE**

SL. No	DATE	TOPIC			
1.	07/04/2020 10:00 AM - 4:00 PM	Introduction to AI in Robotics			
2.	08/04/2020 10:00 AM – 4:00 PM	AI Algorithms for Robotics			
3.	09/04/2020 10:00 AM – 4:00 PM	Cutting-edge Research and Future Directions			
4.	10/04/2020 10:00 AM – 4:00 PM	Advanced AI Techniques in Robotics			
5.	11/04/2020 10:00 AM – 4:00 PM	Applications of AI in Robotics			



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING

#### &TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINNERING

#### Online Workshop on Trending Perspective of AI in Robotics

#### **SYLLABUS**

Sl. No	Topic					
	Introduction to AI in Robotics					
	Overview of AI and Robotics					
1	Historical perspective and evolution					
	<ul> <li>Basic concepts: Machine Learning, Deep Learning, Reinforcement Learning</li> </ul>					
	Ethical considerations and societal impacts					
	AI Algorithms for Robotics					
20	<ul> <li>Perception algorithms: Computer Vision, LiDAR, Sensor Fusion</li> </ul>					
	Localization and Mapping (SLAM)					
2	Path planning and Navigation					
	Control algorithms: PID, MPC, Reinforcement Learning for control					
	Cutting-edge Research and Future Directions					
	State-of-the-art research in AI and Robotics					
3	<ul> <li>Emerging trends: Swarm robotics, Soft robotics, Bio-inspired robotics</li> </ul>					
3	Challenges and open problems					
	Opportunities for innovation and entrepreneurship					
	Advanced AI Techniques in Robotics					
	Deep Reinforcement Learning for robotics					
4	Transfer learning and domain adaptation					
7	Human-robot interaction					
	Explainable AI in robotics					
	Applications of AI in Robotics					
	Industrial robotics: Automation, Manufacturing					
5	Service robotics: Healthcare, Hospitality, Retail					
3	Autonomous vehicles: Cars, Drones, Underwater vehicles					
	Agricultural robotics: Precision farming, Harvesting robots					

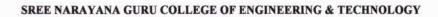


# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING A WORKSHOP ON FAMILARIZING AI AND ROBOTICS ENROLLED LIST

SL NO.	REG NO.	NAME
1	SNC18CS001	ADIL BIN ANWAR C P
2	SNC18CS009	ÁSHAMOL P R
3	SNC18CS011	BHAVYA . N
4	SNC18CS014	GOKUL RAJ K
	SNC18CS018	MUBASHIRA
6	SNC18CS019	MUHAMMED NIHAL K V
7	SNC18CS022	NITHIN RAJ V V
8	SNC18CS024	PRANOY PRAMOD
9	SNC18CS025	P VISHNU
10	STM18CS031	RITHIKA SATHEESH BABU
11	SNC18CS030	SHIRIN MUSTHAFA P . P
12	SNC18CS031	SIDHARTH S BABU
13	SNC18CS032	SREEHARI. K
14	SNC18CS033	VISMAYA SREEJITH
15	LSNC18CS035	ANASWARA RAJAN

Event Co-ordinator

HoD





# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING A WORKSHOP ON FAMILARIZING AI AND ROBOTICS ATTENDANCE SHEET

VENUE: GOOGLE MEET

SESSION: 10:00 AM - 4:00 PM

SL NO.	REG NO.	NAME	07-04-2020	08-04-2020	09-04-2020	10-04-2020	11-04-2020
1	SNC18CS001	ADIL BIN ANWAR C P	×	· ×	X	×	×
2	SNC18CS009	ASHAMOL P R	×	×	X	X	X
3	SNC18CS011	BHAVYA . N	×	×	×	×	×
4	SNC18CS014	GOKUL RAJ K	X	X	×	X	×
5	SNC18CS018	MUBASHIRA	×	×	X	X	×
6	SNC18CS019	MUHAMMED NIHAL K V	×	×	X	×	×
7	SNC18CS022	NITHIN RAJ V V	Y	×	×	X	X
8	SNC18CS024	PRANOY PRAMOD	X	X	X	X	X
9	SNC18CS025	P VISHNU	X	×	×	X	У
10	STM18CS031	RITHIKA SATHEESH BABU	X	· X	x	X	X
11	SNC18CS030	SHIRIN MUSTHAFA P. P	X	Y	×	X	×
12	SNC18CS031	SIDHARTH S BABU	×	×	X	X	У
13	SNC18CS032	SREEHARI . K	X	X	X	X	×
14	SNC18CS033	VISMAYA SREEJITH	X	X,	×	x	×
15	LSNC18CS035	ANASWARA RAJAN	X	X	7	X	×

Event Co-ordinator

HoD



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINNERING

#### Summary Report of the Online workshop on Trending Perspective of AI in Robotics

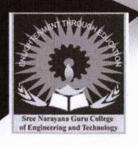
Date: 7th April 2020 to 11th April 2020

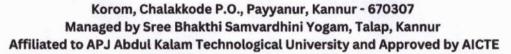
Venue: Google Meet

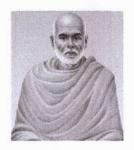
The Department of Computer Science and Engineering (CSE) at Sree Narayana Guru College of Engineering and Technology (SNGCET) organized a Online workshop focusing on the "Trending Perspective of AI in Robotics" from 07/04/2020 to 11/04/2020. The Online workshop aimed to explore the intersection of artificial intelligence (AI) and robotics, highlighting the latest developments, challenges, and future prospects in this dynamic field. Mr. Sunder V and Mrs. Gripsy Paul Mannickathan ,Assistant professors, ASIET, Kaladi commenced the Online workshop with an insightful introduction to the integration of AI in robotics and the event is coordinated by Sreeraji Narayanan, Assistant Professor, SNGCET.

The speakers delved into various real-world applications where AI is transforming robotics, including autonomous vehicles, healthcare robotics, industrial automation, and smart manufacturing. They discussed recent trends such as collaborative robots (cobots), swarm robotics, and reinforcement learning algorithms enhancing robot autonomy and decision-making capabilities. provided valuable insights into the transformative potential of AI in reshaping the field of robotics. By elucidating current trends, challenges, and opportunities, the Online workshop served as a platform for knowledge sharing and collaborative discourse, fostering a deeper understanding of the intersection between AI and robotics and inspiring future innovations in this exciting domain.

The Online workshop concluded with an engaging Q&A session, where participants had the opportunity to interact with the speakers, seeking clarification on various topics discussed during the session. The exchange of ideas and perspectives further enriched the learning experience and fostered a sense of community among participants.







# CERTIFICATE

of participation

Presented to \_\_\_\_\_\_\_ADITH VINOD , S4 CSE \_\_\_\_\_\_ for attending five days online workshop on TRENDING PERSPECTIVES OF AI IN ROBOTICS conducted by the Department of Computer Science and Engineering from 07/04/2020 to 11/04/2020.

& records

Sreeraji Narayanan

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Amitha I C

# Feedback Form for Workshop on "Trending Perspectives of AI in Robotics" (1: Low 5: High)

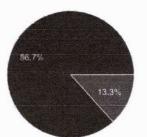
15 responses

Publish analytics

1. On a scale of 1 to 5, how would you rate the overall quality of the workshop?

□ Сору

15 responses

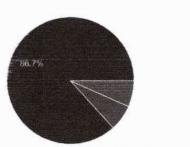


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2. How would you rate the clarity of the workshop content on a scale of 1 to 5, with 5 being very clear and 1 being not clear at all?

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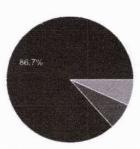
15 responses



3. Please rate the relevance of the workshop content to your interests or professional needs on a scale of 1 to 5.

Сору

15 responses



12345

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR 4. How would you rate the engagement level of the workshop presentation on a scale of 1 to 5?

15 responses

1 1 2 3 4 4 5 5

5. On a scale of 1 to 5, how informative did you find the workshop content?

15 responses





Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# WEB DEVELOPMENT TECHNOLOGIES

RESOURCE PERSON



Ms.SREESHA GOVIND

Assistant Professor SNGCET

EVENT COORDINATOR

Ms. SREERAJI NARAYANAN

Assistant Professor SNGCET

VENUE
MEETING HALL

18/02/2019- 22/02/2019 9.00 AM - 4.00 PM

PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYMOUR
KANNUR



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING FIVE DAY WORKSHOP ON WEB DEVELOPMENT TECHNOLOGIES SCHEDULE

SI.No	DATE & TIME	TOPIC
1	18/02/2019 9.00 AM – 4.00 PM	Introduction to web technologies
2	19/02/2019 9.00 AM – 4.00 PM	Markup Language-HTML
3	20/02/2019 9.00 AM – 4.00 PM	CSS- Cascading Style Sheet
4	21/02/2019 9.00 AM – 4.00 PM	JavaScript
5	22/02/2019 9.00 AM – 4.00 PM	Frameworks



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING WEB DEVELOPMENT TECHNOLOGIES

#### A WORKSHOP ON WEB DEVELOPMENT TECHNOLOGIES

#### **SYLLUBUS**

SI.No	TOPIC
1	Introduction to web technologies
	HTML (Hypertext Markup Language)
	CSS (Cascading Style Sheets)
	JavaScript
	Web Browsers
	Web Servers
2	Markup Language-HTML
	HTML-Basic rules
	Syntax
	DOM Structure
	Tags and Meta Tags
	Forms and Input Elements
	Multimedia Integration (e.g., images, videos, audio)
	• Tables
	Lists (Ordered and Unordered)
	Hyperlinks and Anchors
	Comments in HTML
3	CSS- Cascading Style Sheets
	Selectors
	CSS Box Model
	Typography
	Colors and Backgrounds
	<ul> <li>Layouts (e.g., Flexbox, Grid)</li> </ul>
	Responsive Design
	CSS Transitions and Animations
	<ul> <li>CSS Frameworks (e.g., Bootstrap)</li> </ul>
	Media Queries
- 5	<ul> <li>CSS Variables (Custom Properties)</li> </ul>
	Browser Compatibility
4	JavaScript
	Variables and Data Types
	Functions and Control Flow
	Arrays and Objects
-	DOM Manipulation and Events
	Asynchronous JavaScript and Promises
5	Frameworks
	<ul> <li>Types of Frameworks (e.g., front-end, back-end, full-stack)</li> </ul>
	Popular Front-End Frameworks (e.g., React, Angular)
	Popular Back-End Frameworks (e.g., Laravel, Django)
	• Full-Stack Frameworks
	Pros and Cons of Using Frameworks
	MVC (Model-View-Controller) Architecture in Frameworks

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### A WORKSHOP ON WEB DEVELOPMENT TECHNOLOGIES

#### NAME LIST

VENUE: MEETING HALL

SL NO.	REG NO.	NAME
1	SNC16CS001	АВНІЛІТН К
2	SNC16CS002	ABHINAV DIVAKARAN
3	SNC16CS004	ADARSH KUMAR O.V
4	SNC16CS005	AISWARYA AV
5	SNC16CS007	AKSHAY T
6	SNC16CS012	ASHNA RAGESH
7.	SNC16CS013	ASWIN SADANAND
8	SNC16CS014	ATHULYA K P
9	SNC16CS017	EBRAHIM SAINUDHEEN
10	SNC16CS020	GOPIKA SURESHBABU P
11	SNC16CS023	JAISHNA JAYASENAN
12	SNC16CS025	MOHAMED SHUJAATH SHAFEER VT
13	SNC16CS026	MOHAMMED ANFAZ
14	SNC16CS032	P ABHIJITH MOHANAN
15	SNC16CS033	PATHMASANA K P
16	SNC16CS037	SANJANA P
17	SNC16CS042	SREELAKSHMI PV
18	SNC16CS043	VAISHAK A P
19	SNC16CS044	VARUN V
20	LSNC16CS046	VIPEESH T

Event Co-ordinator

HoD

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING WEB DEVELOPMENT TECHNOLOGIES A WORKSHOP ON WEB DEVELOPMENT TECHNOLOGIES

VENUE: MEETING HALL

ATTENDANCE SHEET

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3	SNC16CS004	ADARSH KUMAR O.V	41000	Margaret	Adausta-	Adenda	Adams
4	SNC16CS005	AISWARYA AV	Australia	to wante	Acromasys	Arseday	Awagas
5	SNC16CS007	AKSHAY T	1	*	B	***************************************	X
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13	SNC16CS026	MOHAMMED ANFAZ	5		d	P	W.
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Event Co-ordinator

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

HoD



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINNERING

#### Summary Report of the Workshop on Web Development Technologies

Date: 18th February 2019 to 22th February 2019

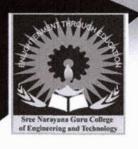
Venue: Meeting Hall, Department of Computer Science and Engineering (CSE), Sree Narayana Guru College of Engineering and Technology (SNGCET)

The Department of Computer Science and Engineering (CSE) at Sree Narayana Guru College of Engineering and Technology (SNGCET) organized a workshop on "Web Development Technologies" from February 18th to February 22nd, 2019. The objective of this workshop was to provide students with valuable insights into various web development technologies.

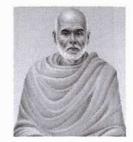
The event was inaugurated by Dr. Janardhanan P V, the Principal of SNGCET, and Ms. Amitha I C, the Head of Department (HoD) of SNGCET. Ms. Shreesha Govind, Assistant Professor at SNGCET, served as the resource person for the workshop.

During the workshop, participants were introduced to fundamental concepts of web development, including HTML, CSS, JavaScript, and various frameworks and libraries. Hands-on sessions were conducted to provide practical experience in building web applications and websites.

Overall, the workshop was well-received by students, who expressed appreciation for the comprehensive coverage of topics and the opportunity to learn from experienced team members. The event concluded successfully, with students gaining valuable knowledge and skills in web development technologies.



Korom, Chalakkode P.O., Payyanur, Kannur - 670307 Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kannur Affiliated to APJ Abdul Kalam Technological University and Approved by AICTE



# CERTIFICATE

of participation

Jeeney

Sreeraji Narayanan COORDINATOR

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

Amitha I C

#### Feedback Form for Wotkshop on Web Development Technologies (1: Low 5: High)

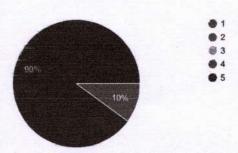
20 responses

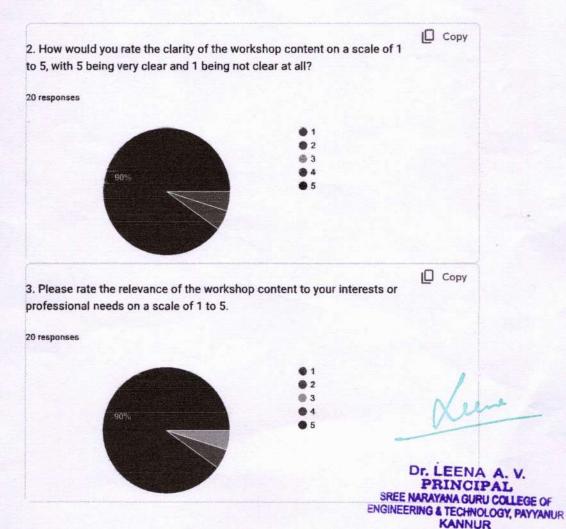
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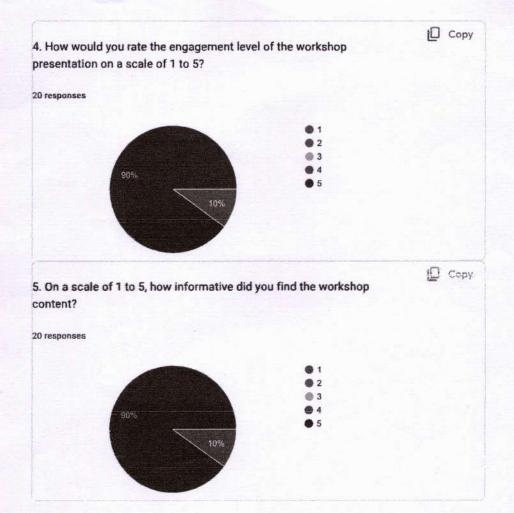
1. On a scale of 1 to 5, how would you rate the overall quality of the workshop?

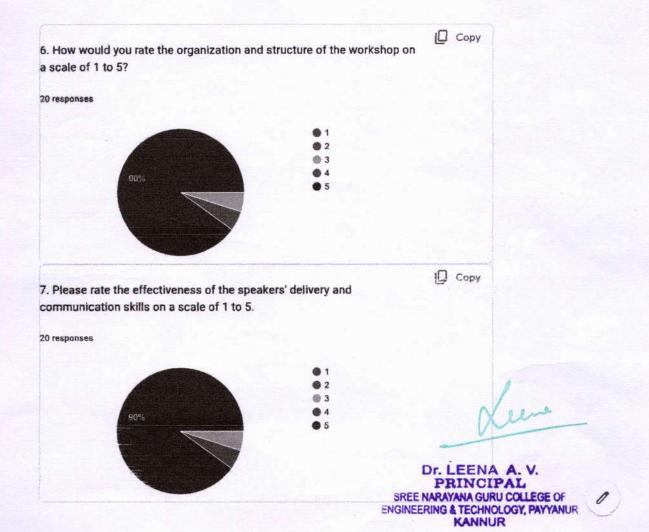
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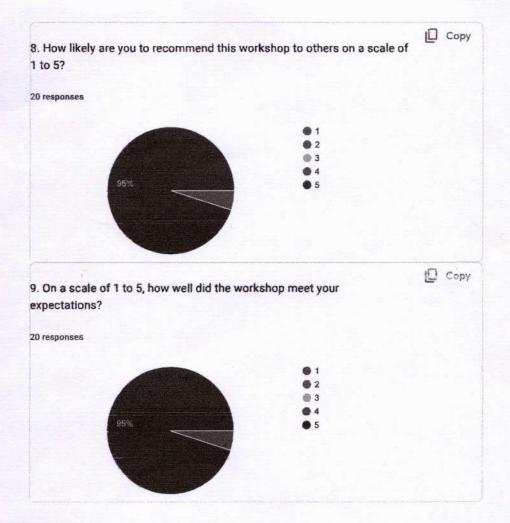
20 responses

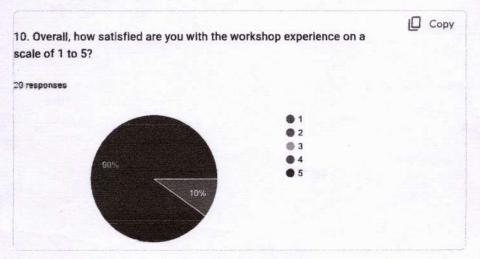










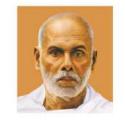


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Google Forms



# Sree Narayana Guru College of Engineering & Technology



CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

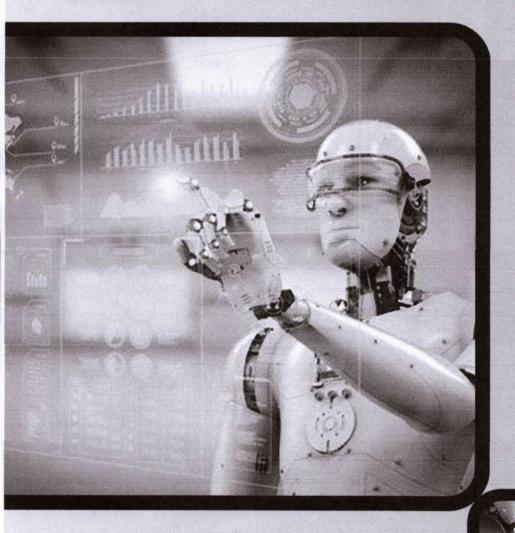
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# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

# ROBOTICS WORKSHOP



02/08/2022

TO

06/08/2022

TIME: 9 AM TO 4:30 PM

VENUE: SEMINAR HALL, SNGCE

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
GINEFRING & TECHNOLOGY, PAYYANUR

**Instituition Code:** 

SNC

For Contact: 9746044628

(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

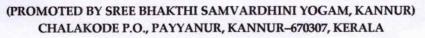
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

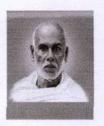
#### ROBOTICS WORKSHOP

#### **SCHEDULE**

SI.N o	Date	Topic
1	27-06-2023 Time: 9:00am to 12:30pm & 1:30pm to 4:30pm	Introduction to Robotics and Arduino
2	28-06-2023 Time: 9:00am to 12:30pm & 1:30pm to 4:30pm	Arduino Programming Fundamentals
3	29-06-2023 Time: 9:00am to 12:30pm & 1:30pm to 4:30pm	Sensor Integration with Arduino
4	30-06-2023 Time: 9:00am to 12:30pm & 1:30pm to 4:30pm	Actuator Control with Arduino
5	1-07-2023 Time: 9:00am to 12:30pm & 1:30pm to 4:30pm	Robotics Project and Advanced Concepts







#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

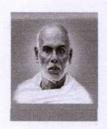
#### ROBOTICS WORKSHOP

#### **SYLLABUS**

Sl.No	Topic
1	Introduction to Robotics and Arduino
	<ul> <li>Overview of Robotics and its applications</li> </ul>
	<ul> <li>Introduction to Arduino boards and their features</li> </ul>
	<ul> <li>Installing Arduino IDE and configuring boards</li> </ul>
	<ul> <li>Basic Arduino programming concepts (variables, data types, loops)</li> </ul>
2	Arduino Programming Fundamentals
	Control structures (if, else, switch)
	Functions and modular programming
	Arrays and strings in Arduino programming
	Analog and digital input/output
3	Sensor Integration with Arduino
	<ul> <li>Introduction to sensors (e.g., light sensors, temperature sensors)</li> </ul>
	Connecting sensors to Arduino
	Reading sensor data and processing
	Hands-on: Interfacing LEDs and basic sensors
4	Actuator Control with Arduino
	<ul> <li>Introduction to actuators (e.g., motors, servos)</li> </ul>
	<ul> <li>Connecting actuators to Arduino PWM (Pulse Width Modulation)</li> </ul>
	for motor control
	<ul> <li>Hands-on: Controlling motors and servos with Arduino</li> </ul>
5	Robotics Project and Advanced Concepts
	<ul> <li>Integration of sensors and actuators into a robotics project</li> </ul>
	<ul> <li>Project development using Arduino Troubleshooting and</li> </ul>
	debugging
	<ul> <li>Advanced Arduino concepts (interrupts, communication protocols)</li> </ul>
	<ul> <li>Project presentation and discussionDevelop the project using</li> </ul>
	Embedded C and C++
	Hands-on debugging and testing



(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA



#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

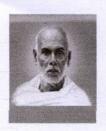
#### ROBOTICS WORKSHOP

Project presentation and feedback session

**Assessment Criteria:** 

Short quizzes and assessments throughout the workshop Participation in hands-on exercises.





(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### STUDENTS LIST

	THIDE	
Sl.No	Name	
1	ATHUL S	
2	ANUSREE N	
3	AKARSH KRISHNA	
4	YUVN SHANKAR	
5	SINI MOL PP	
6	SNEHA T	
7	VARADA B	
8	LAKSHMI	
9	HARISREE K	
10	DIYA M	
11	ZAHA FATHIMA	
12	SREEHARI TV	
13	AKASH KRISHANAN	
14	SIDHI T	
15	ARADHYA SURESH	
16	ASWATHI P	
17	SHAMNAS S	
18	AARYA M S	THEF
19	FATHIMATHUL FIDA P K	
20	JAGAN MOHAN	TAY SEE
21	MOHAMMED NAAZ	
22 .V	THANYAM S	

SPEE NARAYANA GURU COLLEGE OF ENGREERING & TECHNOLOGY, PAYTAMAR HANNON

23	FATHIMATHUL NIDHA P
24	SREELAKSHMI C
25	ANUSREE TK
26	MALAVIIKA P
27	SHREYA S
28	NI, ISHA SAJEEV
29	MEGHANA S
30	KEERTHIT

Dr. LEENA A. V.
PRINCIPAL
SREENARAYAN GURU COLLEGE OF
ENGHEERING & TECHNOLOGY, INVANISH
KANNUR



ATTENDANCE SHEET DAY 1.

	ATTENDANCE SHEE	
Sl.No	NAME	SIGN
1	Athul S.	Alle
2	Anuspre N	Aoneeco.
3	Akarsh Krithna	Aonesea.
4	Yuvan Shankar	4/2001
5	Sinimal P.P	See .
6	Sheha T	Yroal -
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### ROBOTICS WORKSHOP

ATTENDANCE SHEET

DAY 2

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3	AKARSH KRISHNA	An
4	YUVN SHANKAR	Emai.
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12	SREEHARI TV	Stav
13	AKASH KRISHANAN	Hanke
14	SIDHI T	Cathair
15	ARADHYA SURESH	ARHU
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20	JAGAN MOHAN	Yareth
21	MOHAMMED NAAZ	OKAN
22	THANYA M S	The
23	FATHIMATHUL NIDHA P	STAN .
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25	ANUSREE T K	Anun
26	MALAVIIKA P	Makurka
27	SHREYA S	Ruger
28	NI,ISHA SAJEEV	Domba
29	MEGHANA S	Meghana
30	KEERTHI T	Leith

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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### ROBOTICS WORKSHOP ATTENDANCE SHEET

DAY 3

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1	ATHUL S	PAGA-
2	ANUSREE N	Deltoglie
3	AKARSH KRISHNA	Ass.
4	YUVN SHANKAR	Queau
5	SINI MOL P P	James
6	SNEHA T	SAME
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10	DIYA M	Jugan
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29	MEGHANA S	neghian
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### ROBOTICS WORKSHOP

DAY 4

ATTENDANCE SHEET

SL NO	NAME	SIGN
1	ATHUL S	Africa
2	ANUSREE N	Amaria
3	AKARSH KRISHNA	I Rosel
4	YUVN SHANKAR	Yours
5	SINI MOL P P	O Somo
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13	AKASH KRISHANAN	Howhka
14	SIDHI T	Saldhi
15	ARADHYA SURESH	Mail
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17	SHAMNAS S	8m
18	AARYA M S	Dong
19	FATHIMATHUL FIDA P K	Fathmahul Fools
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

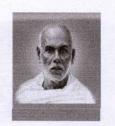
#### ROBOTICS WORKSHOP ATTENDANCE SHEET

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(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### ROBOTICS WORKSHOP

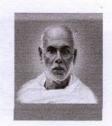
The Department of Electronics and Communication Engineering at Sree Narayana Guru College of Engineering and Technology conducted a robotics workshop for Plus Two students on 02.08.2022 to 06.08.2022. This workshop aimed to provide participants with a comprehensive introduction to robotics, emphasizing Arduino programming and the creation of line-following robots. The event was an overwhelming success, fostering enthusiasm among the students and providing them with invaluable skills and knowledge.



The workshop began with a warm welcome by Leena Narayanan, AP ECE who introduced the participants to the objectives of the workshop, the importance of electronics and robotics, and the exciting prospects of pursuing careers in these fields. The first part of the lesson introduced students to the world of Arduino programming. They gained knowledge of Arduino boards, fundamental programming concepts, and how to connect LEDs, sensors, and actuators to the Arduino platform. The practical portion of the workshop, in which students were charged with creating their own line-following robots, was one of its standout features. meticulously participants built and programmed their robots under the direction of skilled teachers using kits that contained sensors, motors, and Arduino boards.

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(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA



The session gave Plus Two pupils an invaluable educational opportunity and sparked their interest in robotics, electronics, and programming. The program was essential in igniting the interest in robotic fields among young engineers.



# CERTIFICATE ROBOTICS WORKSHOP

THIS CERTIFICATE IS ISSUED TO MS. SNEHA T FOR PARTICIPATING THE 5 DAYS ROBOTICS WORKSHOP AT SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY FROM 02/08/2022 -06/08/2022

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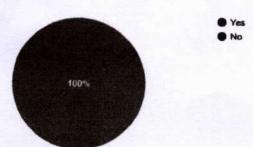
CO-ORDINATOR

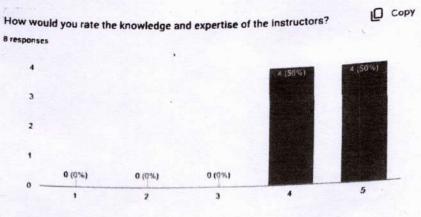
James HODER

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PRINCIPAL

## ROBOTICS WORKSHOP 8 responses Publish analytics Were the workshop materials and content relevant to your expectations □ Сору and needs? 8 responses • YES No 100% Did the instructors encourage questions and provide clear explanations? Copy 8 responses • YES No 100% Were the instructions for the hands-on activities clear and easy to follow? □ Copy 8 responses Yes 100% Did you feel a sense of community or teamwork during the workshop? □ Copy 8 responses

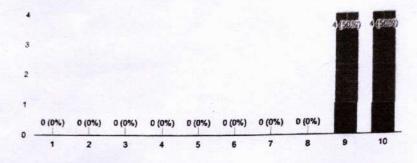




On a scale of 1 to 10, how would you rate your overall experience in this robotics workshop?

□ Сору

8 responses



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Luc

Dr. LEENA A. V.
PRINCIPAL

SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR



## **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

Department of Electronics and Communication
Engineering

# 5 DAYS WORKSHOP ON ARDLING BASICS WITH HANDS ON TRAINING

06/06/2022 TO 10/06/2022

TIME: 9 AM TO 4:30 PM

VENUE: SEMINAR HALL, SNGCE

Instituition Code: SNC





#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### SCHEDULE

DATE	TIME	TOPICS
06/06/2022	9.00 am to 12.30 pm	Introduction to Arduino Basic Electronics Components
	1.30pm to 4.30 pm	Introduction to Breadboards
07/06/2022	9.00 am to 12.30 pm	Hands-on Arduino Basics Hands-on Activity: Blinking an LED Serial Communication
	1.00 pm to 4.30 pm	Introduction to Sensors Reading Analog Sensor Data
08/06/2022	9.00 am to 12.30 pm	Introduction to Actuators Hands-on Activity:Controlling a DC Motor
	1.30pm to 4.30 pm	Introduction to Pulse Width Modulation (PWM)
09/06/2022	9.00 am to 12.30 pm	Serial Communication Functions and Libraries
	1.30pm to 4.30 pm	Troubleshooting and Debugging
10/06/2022	9.00 am to 12.30 pm	Project Planning and Implementation
	1.30pm to 4.30 pm	Project Presentation



#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### **SYLLABUS**

Introduction to Arduino	History and background. Overview of Arduino boards (Uno, Nano, Mega, etc.). Applications of Arduino in various fields (IoT, robotics, automation, etc.)		
Basic Electronics Components	Explanation of fundamental components. Resistors, capacitors, LEDs, pushbuttons, etc. Understanding component specifications (resistance, capacitance, voltage ratings, etc.) Safety precautions in handling electronic components		
Introduction to Breadboards	Explanation of breadboard layout and connections. Hands-on activity: Building simple circuits on a breadboard		
Hands-on Arduino Basics	Introduction to Arduino IDE (Integrated Development Environment) Setting up Arduino IDE on participants system. Uploading a simple "Hello World" program to Arduino board. Understanding the basic structure of an Arduino sketch (setup() and loop() functions)		
Hands-on Activity: Blinking an LED	Wiring an LED to Arduino board. Writing a program to blink the LED on and off. Uploading and testing the program on Arduino board		
Serial Introduction to serial communication and its importance in Ardu projects. Sending data from Arduino to computer via serial mon. Reading data from serial monitor			
Introduction to Sensors  Overview of common sensors used with Arduino (temperature humidity, light, motion, etc.). Working principles of sensors. Ha activity: Interfacing a temperature sensor with Arduino			
Reading Analog Sensor Data	Understanding analog-to-digital conversion (ADC).Reading analog sensor data using Arduino .Calibrating sensors and mapping sensor values		
Introduction to Actuators	Overview of different types of actuators (motors, servos, relays, etc.). Working principles and applications of actuators		
Hands-on Activity:Controllin g a DC Motor	Introduction to motor drivers and H-bridge circuits. Wiring and controlling a DC motor using Arduino		
Introduction to Pulse Width Modulation (PWM)	Explanation of PWM and its application in motor speed control.Hands- on activity: Controlling motor speed using PWM signals		
Serial Communication	Review of serial communication basics. Hands-on activity: Implementing two-way communication between Arduino and computer		
Functions and	Introduction to functions in Arduino programming. Writing and using		
	4 VALEENA A V		

ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Libraries	custom functions. Introduction to Arduino libraries and their usage	
Troubleshooting and Debugging	Common programming errors and hardware issues. Strategies for troubleshooting and debugging Arduino projects. Hands-on activity: Identifying and fixing common errors in sample projects	
Project Planning and Implementation	Brainstorming and planning individual or group projects. Gathering required components and materials  Building and testing projects with guidance from instructors	
Project Presentation	Each participant/group demonstrates their project to the rest of the workshop attendees. Explanation of project concept, components used, and functionality. Q&A session and feedback from instructors and peers	

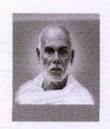
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Dr. LEENA A. V.
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(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### STUDENTS LIST

1 ADITH SURYA 2 AKSHAY P 3 ANGEL MARY 4 ANN MARIYA 5 ABHILASH CK 6 AKASH B 7 ABAY DEV 8 AKHIL K 9 ASWATHI C 10 ANU M 11 DHRUV D K 12 JIJITH P K 13 RENJITH K 14 RONNY K 15 RAHUL K K 16 REMYA B 17 RASHA FATHIMA K 18 NASLA FATHIMA P V 19 SANVI SARATH 20 SUSAN SAM	Sl.No		Name
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	20	SUSAN SAM	SREE HARAYANA GUAU COLLEGE OF ENGINEERROOF TECHNAL CON PAYYAND
	21	SUDHIN C P	Aulian

23	SHAHASAD
24	SUNISH SU
25	SISIRA SREEKUMAR
26	SHIVARANJINI
27	KARTIK
28	ATHUL KUMAR
29	AJAY P K

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DR ÉEENA A.V.
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SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYAM—
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Five Days Workshop On Ardumo Basics with Hands on Training

ATTENDANCE SHEET

ATTENDANCE SHEET			
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23	Santh	Sural	
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Five Days Workshop with Arduno Basics with Hands on Training.
ATTENDANCE SHEET

#### DAY 2

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1	ADITH SURYA	Acrife
2	AKSHAY P	Delieya
3	ANGEL MARY	dugle
4	ANN MARIYA	Raghth
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6	AKASH B	Ala
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23	SHAHASAD	She she
24	SUNISH	audi
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26	SHIVARANJINI	AQU_
27	KARTIK	Ala h
28	ATHUL KUMAR	AU XI
29	AJAYPK	100
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## SREE NARAYANA GURU COLLEGE OF ENGINEERING TECHNOLOGY LANGE TO THE RESERVE TO THE

Five Days Workshop on Arduno Basics with Hands on Training.
ATTENDANCE SHEET

#### DAY 3

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1	ADITH SURYA	A Swan
2	AKSHAY P	Pastrey
3	ANGEL MARY	Angel
4	ANN MARIYA	Ragany
5	ABHILASH C K	Solbhlash
6	AKASH B	Alusk
7	ABAY DEV	Aba y
8	AKHIL K	ABH
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13	RENJITH K	Round.
14	RONNY K	Donne
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17	RASHA FATHIMA K	Palla
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22	SOUJISHA K K	Love .
23	SHAHASAD	Charch
24	SUNISH	Sunell
25	SISIRA SREEKUMAR	Duga.
26	SHIVARANJINI	Compa.
27	KARTIK	Taxthu -
28	ATHUL KUMAR	Att
29	AJAYPK	bus.



Five Days workshop on Arduno Basics with Hands on Training.

ATTENDANCE SHEET

#### DAY 4

SL NO	NAME	SIGN
1	ADITH SURYA	druge
2	AKSHAY P	Prehout
3	ANGEL MARY	Angel
4	ANN MARIYA	Rasha
5	ABHILASH C K	Abhilas
6	AKASH B	Alue
7	ABAY DEV	About
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12	JIJITH P K	Suhila
13	RENJITH K	Parpet
14	RONNY K	Rayl
15	RAHUL K K	Release
16	REMYA B	Ra
17	RASHA FATHIMA K	Restaller
18	NASLA FATHIMA P V	Neal
19	SANVI SARATH	Sun
20	SUSAN SAM	Lucosal
21	SUDHIN C P	Sud
22	SOUJISHA K K	800
23	SHAHASAD	Shahd
24	SUNISH	Sun!
25	SISIRA SREEKUMAR	Sw Sa
26	SHIVARANJINI	Shill
27	KARTIK	White.
28	ATHUL KUMAR	Afthe
29	AJAY P K	190



Five Days workshop on Arduno Basici with Rands on Training ATTENDANCE SHEET

#### DAY 5

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1	ADITH SURYA	Kwys
2	AKSHAY P	Parles
3	ANGEL MARY	dught
4	ANN MARIYA	Raghly
5	ABHILASH C K	Although
6	AKASH B	Alexan
7	ABAY DEV	Alexander
8	AKHIL K	ALDU .
9	ASWATHI C	Kan
10	ANU M	Aust
11	DHRUV D K	24
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20	SUSAN SAM	Quellan
21	SUDHIN C P	Queller
22	SOUJISHA K K	Sola
23	SHAHASAD	Shapa
24	SUNISH	Saul
25	SISIRA SREEKUMAR	0.84
26	SHIVARANJINI	Sold
27	KARTIK	Krichy.
28	ATHUL KUMAR	All Jen
29	AJAYPK	Auto.



#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Five Days Workshop on Arduino Basics with Hands-On Training Date: June 6th, 2022 - June 10th, 2022

The Department of Electronics and Communication Engineering of SNGCET Payyanur organized a comprehensive five-day workshop aimed at introducing plus two pass students to the fundamentals of Arduino programming and basic electronics. The workshop, conducted from June 6th to June 10th, 2022, served to foster interest in electronics and provide hands-on experience with Arduino, a popular open-source hardware and software platform. Ms. Meera M and Ms. Leena Narayanan led the instructional sessions, while Mr. Shahith P. conducted the hands-on sessions, ensuring a balanced approach to theoretical learning and practical application.

#### Workshop Objectives:

- 1. Introduce students to the basics of Arduino and its applications in various fields.
- 2. Provide hands-on experience in building circuits and programming with Arduino.
- 3. Foster interest in electronics and inspire students to explore further studies or careers in the field.
- 4. Raise awareness about advanced technologies and their potential impact on society and industries.

Dr. LEENA A. V.
PRINCIPAL

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Dr. Leena A. V.
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The workshop commenced with an introductory session led by Ms. Meera M and Ms. Leena Narayanan, providing an overview of Arduino, its history, and its applications. Basic electronic components such as resistors, LEDs, and breadboards were introduced, along with safety precautions. Participants were guided through setting up the Arduino IDE and uploading a simple sketch to the Arduino board. A hands-on activity involved blinking an LED to demonstrate basic programming concepts.

Ms. Meera M and Ms. Leena Narayanan delved into the world of sensors and actuators, discussing their types, working principles, and applications. Participants learned to interface temperature sensors with Arduino and read analog sensor data. The session also covered actuators, including DC motors and servos, with a focus on controlling motor speed using PWM signals. Hands-on activities enabled participants to gain practical experience in sensor interfacing and motor control.

On the third day, Ms. Meera M and Ms. Leena Narayanan explored communication protocols such as serial communication. The importance of serial communication in Arduino projects was emphasized, followed by practical demonstrations of interfacing Arduino Wireless communication technologies, including Bluetooth and Wi-Fi, were introduced, broadening participants' understanding of communication protocols and their applications.

The focus of the fourth day was on advanced Arduino programming concepts, led by Ms. Meera M and Ms. Leena Narayanan. Participants learned about functions, libraries, and their usage in Arduino programming, followed by practical exercises in integrating third-party libraries for additional functionality. Troubleshooting and debugging techniques were demonstrated, with hands-on practice to identify and fix common errors in Arduino projects.

The final day of the workshop was dedicated to project building and presentation. Under the guidance of Ms. Meera M, Ms. Leena Narayanan, and Mr. Shahith P., participants worked on individual or group projects, applying the knowledge and skills acquired during the workshop. Assistance and support were provided as needed to ensure successful project completion. In the afternoon

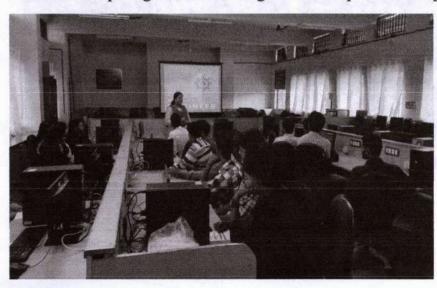
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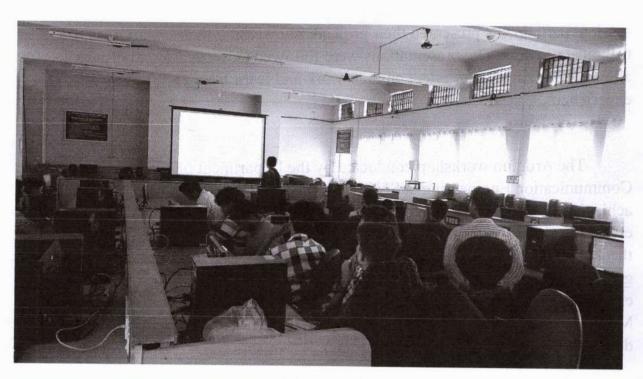
session, participants presented their projects, showcasing their creativity and technical prowess. The presentations were followed by feedback and discussions, allowing participants to reflect on their work and learn from each other's experiences.

The Arduino workshop conducted by the Department of Electronics and Communication Engineering at SNGCET Payyanur was a resounding success, achieving its objectives of introducing students to Arduino programming and basic electronics while fostering interest in the field. Through a combination of theoretical lectures, hands-on activities, and project-based learning, participants gained valuable skills and practical experience, paving the way for further exploration and growth in the field of electronics. Special thanks to Ms. Meera M, Ms. Leena Narayanan, and Mr. Shahith P. for their dedication and expertise in delivering an enriching learning experience.

Participant feedback was overwhelmingly positive, with many expressing their appreciation for the workshop's interactive and engaging format. Participants praised the instructors for their clear explanations and hands-on approach, stating that they felt more confident in working with Arduino and electronics after attending the workshop. Several participants expressed their desire to pursue further studies or careers in electronics and related fields, indicating the workshop's success in inspiring and motivating them to explore new opportunities.



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CHALAKODE (PO), PAYYANUR, KANNUR-670307, KERALA

WORKSHOP ON ARDUINO BASICS WITH HANDS ON TRAINING

#### CERTIFICATE OF PARTICIPATION

This Certificate is issued to Ms.Anu M for participating in the Five Days Workshop on Arduino Basics with Hands on Training at Sree Narayana Guru College of Engineering & Technology from 06/06/2022 to 10/06/2022

1 sem

MS LEENA NARAYANAN COORDINATOR MR.K RAVEENDRAN

HOD, ECE

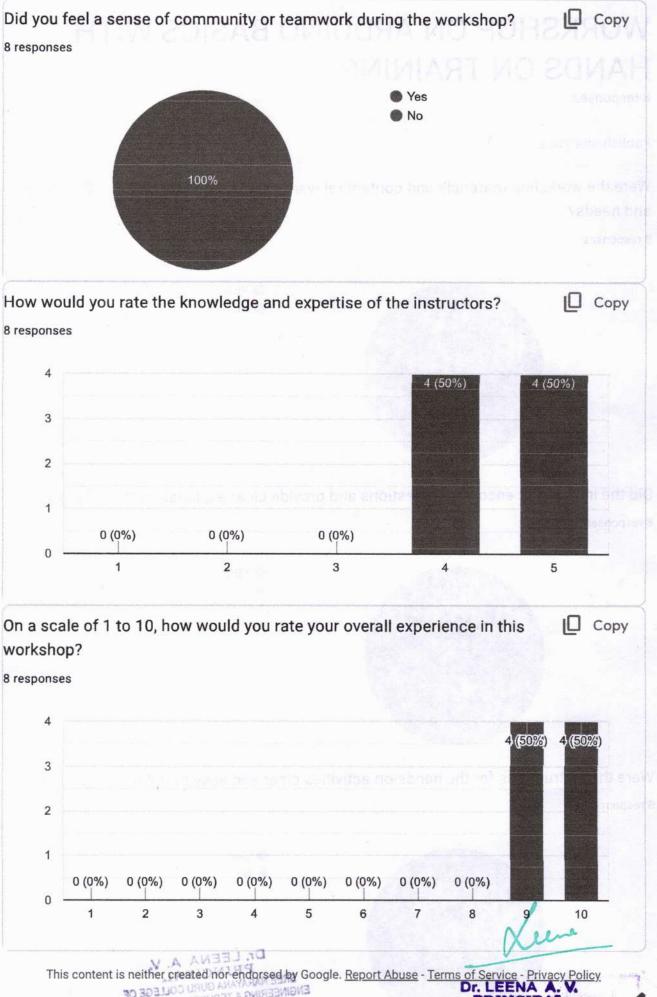
DR.LEENA A V

PRINCIPAL

## WORKSHOP ON ARDUINO BASICS WITH HANDS ON TRAINING

8 responses Publish analytics Copy Were the workshop materials and content relevant to your expectations and needs? 8 responses YES 100% Did the instructors encourage questions and provide clear explanations? I Copy 8 responses YES 100% Were the instructions for the hands-on activities clear and easy to follow? ☐ Copy 8 responses Yes 100%

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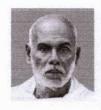
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**ENGINEERING & TECHNOLOG** 



## Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



## Department of Electronics and Communication Engineering

## IoT Workshop on Internet of Things using Arduino, Raspberry Pi & MQTT



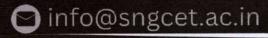
24/05/2021 to 28/05/2021

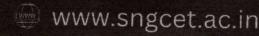


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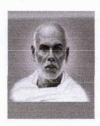




For Enquiry: 949533628



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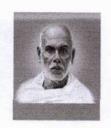
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### IoT | Workshop on Internet of Things using Arduino, RaspberryPi & MQTT

#### **SCHEDULE**

Sl.No	Date	Topic
1	24-05-2021 Time: 9:00am to 12:30pm & 1:30pm to 4:00pm	Introduction to the Internet of Things, Cloud Computing, The Arduino Open-Microcontroller Platform and Arduino Basics
2	25-05-2021 Time: 9:00am to 12:30pm & 1:30pm to 4:00pm	Integrating Ethernet Module & Testing DHCP Connection, Make Electronics Gadget Talk to Internet, Integrating Ethernet Module
3	26-05-2021 Time: 9:00am to 12:30pm & 1:30pm to 4:00pm	Versions of Raspberry Pi & Their Difference
4	27-05-2021 Time: 9:00am to 12:30pm & 1:30pm to 4:00pm	Introduction to Raspberry Pi and Android
5	28-05-2021 Time: 9:00am to 12:30pm & 1:30pm to 4:00pm	Understanding MQTT & HTTP





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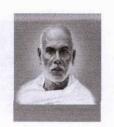
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### IoT | Workshop on Internet of Things using Arduino, RaspberryPi & MQTT

#### SYLLABUS

Sl.No	Topic	Land 1			
1	Introduction to the Internet of Things	De la Ul	4		
	The Internet of Things				
	The Basics of Sensors & Actuators				
	Introduction to Cloud Computing				
	* The Arduino Platform				
	The Arduino Open-Microcontroller Platform				
	Arduino Basics				
	Arduino Board Layout & Architecture				
	* Reading from Sensors				
	* Programming fundamentals ( C language )  * Arduino Programming & Interface of Sensors				
	LaOM airtie				
	Interfacing sensors with Arduino				
	Programming Arduino				
	Reading from Sensors				
2	Integrating Ethernet Module & Testing DHCP Connection				
	Creating Program for Localhost Web Server for controlling	_			
	Being Social on Twitter & update status on Twitter through	gh Ardı	iino		
	<ul> <li>Make Electronics Gadget Talk to Internet</li> </ul>				
	Integrating Ethernet Module				
	Creating App on Twitter				
	<ul> <li>Send Voltage &amp; Analog Data on Cloud Server.</li> </ul>				
	Cloud Computing				
	Communicating with the Cloud using Web Services.				
	Cloud Computing & IOT.				
	Popular Cloud Computing Services for Sensor Management	ent.			
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3	The Internet of Things STECHNOR STECHNOR STECHNORS STECH	N	u	2	
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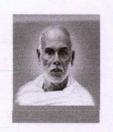
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IoT | Workshop on Internet of Things using Arduino, RaspberryPi & MOTT

<ul> <li>Introduction to Cloud Computing</li> </ul>		
	Understanding and Introduction to R Pi	
	What is SOC?	
Versions of Raspberry Pi & Their Difference		
	Raspberry Pi 3	
	Basics of Electronics      Basics of Electronics	
	Hardware Description	
	Pin Configuration     In Configuration  Output  Description  Output	
	OS Installation on SD Card	
4	Talking to your Android Phone with Raspberry Pi	
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	<ul> <li>Connecting Raspberry Pi with Mobile Device.</li> <li>The Android Mobile OS.</li> </ul>	
	Using the Bluetooth Module ( Spangard 2) Flattendard State of the Spangard State of the Spangard State of the Spangard Spangard State of the Spangard S	
5	Understanding MQTT	
	Difference between HTTP & MQTT	
	Understanding MQTT Broker	
	Understating Publish & Subscribe Methods	

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#### STUDENTS LIST

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#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

PARTICIPANTS LIST IN TOT WORKSHOP	PARTICIPANT	S LIST IN	TOT	WORKSHOP
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### TOT WORKSHOP ATTENDANCE SHEET

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### ATTENDANCE SHEET

Day 5

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28	MUHAMMED SHAMMAS	the fareds.
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36	FATHIMATH RASHA	Daniel .
37	SREYA M	alo ,
38	P SOUPARNIKA	Story.
39	VISMAYA VINOD K	Vivid
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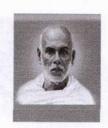
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### IoT | Workshop on Internet of Things using Arduino, RaspberryPi & MQTT

The Department of Electronics and Communication Engineering at Sree Narayana Guru College of Engineering and Technology conducted a IoT | Workshop on Internet of Things using Arduino, RaspberryPi & MQTT workshop for Plus Two students on 24.05.2021 to 28-05-2021. This workshop aimed to provide participants with a comprehensive introduction to robotics, emphasizing Arduino programming and the creation of line-following robots. The event was an overwhelming success, fostering enthusiasm among the students and providing them with invaluable skills and knowledge.

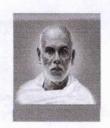
In the rapidly advancing technological landscape, the field of IOT plays a pivotal role. To instill a passion for electronics, programming, and robotics among Plus Two students, the Department of Electronics and Communication Engineering organized an immersive one-day workshop. This workshop encompassed a wide range of sessions, hands-on activities, and demonstrations to impart practical insights into the world of IOT.

The workshop began with a warm welcome by Prof. Raveendran K, HoD, ECE who introduced the participants to the objectives of the workshop, the importance of electronics and IOT, and the exciting prospects of pursuing careers in these fields.

The first part of the lesson was given by Raveendran K, introduced students to the world of Arduino programming. They gained knowledge of Arduino Board Layout & Architecture Reading from Sensors Programming fundamentals (C language), Arduino Programming & Interface of Sensors, Interfacing sensors with Arduino Programming, Arduino Reading from Sensors.

They improved their coding abilities, sharpened their problem-solving abilities, and discovered how to use Arduino to control various electronic components. The second day program was handled by Leena Narayanan which includes Integrating Ethernet Module &





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Testing DHCP Connection, Creating Program for Localhost Web Server for controlling devices. Being Social on Twitter & update status on Twitter through Arduino, Make Electronics Gadget Talk to Internet, Integrating Ethernet Module.

The third day includes practical sessions based on Raspberry Pi. The further day students learned about Understanding MQTT, Difference between HTTP & MQTT, Understanding MQTT Broker, and Understating Publish & Subscribe Methods.

The practical portion of the workshop was handled by lab staffs, in which students were charged with creating their own line-following robots, was one of its standout features. The participants meticulously built and programmed their robots under the direction of skilled teachers using kits that contained sensors, motors, and Arduino boards.

The session gave Plus Two pupils an invaluable educational opportunity and sparked their interest in robotics, electronics, and programming. The program was essential in igniting the interest in IOT fields among young engineers.

Dr. LEENA A. V.
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SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYAMUR
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abilities sharpened their problem-solving abilities



## Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

## CERTIFICATE

Of Appreciation

This certificate is presented to

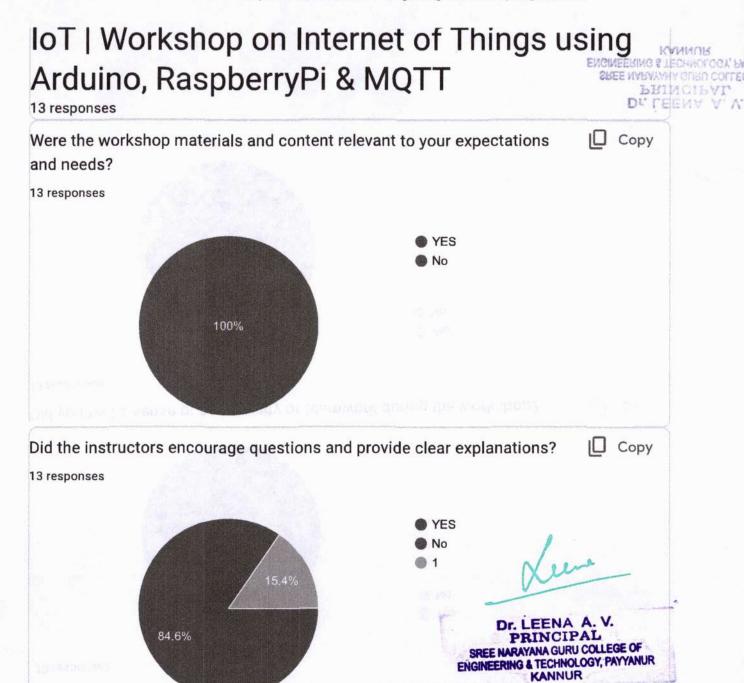
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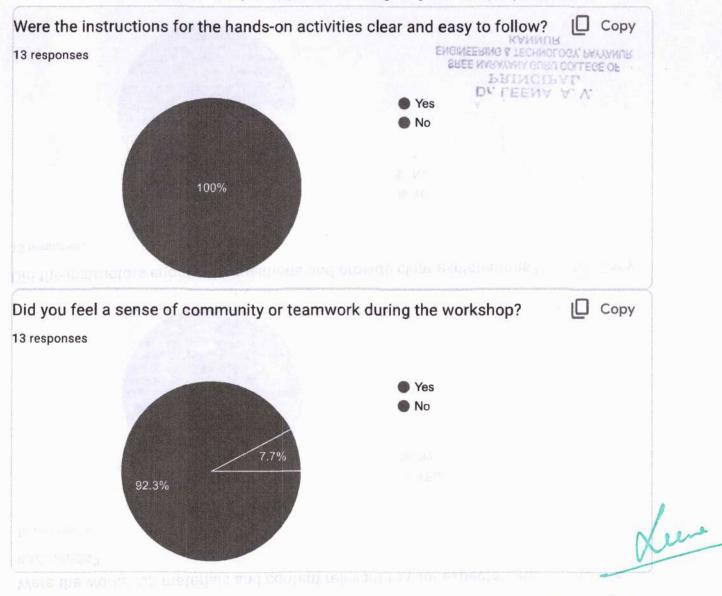
for participating in the five days IoT|Workshop on Internet of Things using Arduino, Raspberry Pi & MQTT at Sree Narayana Guru College of Engineering & Technology from 24/05/2021 to 28/05/2021

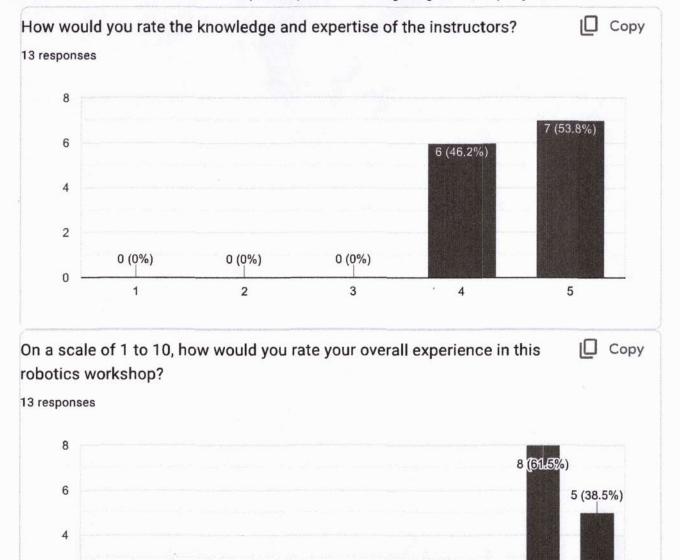
COORDINATOR

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PRINCIPAL







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## DEPARTMENT OF ELECTRONICS AND COMUNICATION ENGINEERING

PRESENTS
AL IMAGE PROCESSING USING PYTHON

#### SREELAKSHMI C

PROJECT ENGINEER, HEALTHCARE TECHNOLOGY INNOVATION CENTRE (HTIC), CHENNA

4 NOV-8 NOV 2019

TIME:9:00AM MEETING HALL



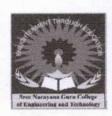


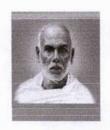
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#### SYLLABUS

Sl.No	Topic
1	Introduction to Digital Image Processing and Python Basics, Basic Python Programming Concepts
2	Fundamentals of Image Representation and Enhancement, Understanding Image Representation (Pixel, Resolution, Color Models) Basic Image Operations (Brightness, Contrast, Histogram)
3	Image Filtering Techniques, Convolution and Filtering Concepts Common Image Filters (Blur, Sharpen, Edge Detection) Image Enhancement Techniques Histogram Equalization
4	Image Transformation Techniques Fourier Transform Discrete Cosine Transform
5	Image Segmentation Techniques & Practical Applications

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### WORKSHOP ON DIGITAL IMAGE PROCESSING USING PYTHON

#### **SCHEDULE**

Sl.No	Date & Time	Topic
1	04-11-2019	Introduction to DIP & Python
	9.00 am to 12.30 pm	Committee of the state of the
	1.30 pm to 4.30 pm	v v
2	05-11-2019	Fundamentals of Image
	9.00 am to 12.30 pm	Representation
	1.30 pm to 4.30 pm	
3	6-11-2019	Image Filtering Techniques
	9.00 am to 12.30 pm	
	1.30 pm to 4.30 pm	
4	7-11-2019	Image Transformation
	9.00 am to 12.30 pm	-
	1.30 pm to 4.30 pm	
5	8-11-2019	Image Segmentation
	9.00 am to 12.30 pm	
	1.30 pm to 4.30 pm	

#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

#### STUDENT REGISTRATION LIST FOR WORKSHOP IN DIP

Sl.No.	Register No.	Student Name	Class
1	SNC16EC001	AFEEFA K	S7
2	SNC16EC002	ANAGHA P	S7
3	SNC16EC003	ANJALI BABU K	S7
4	SNC16EC005	ASWATHI K T	S7
5	SNC16EC006	ATHENA ANIL	S7
6	SNC16EC007	ATHULYA KC	S7
7	SNC16EC008	HARSHA SHANKAR	S7
8	SNC16EC009	KP ANUPRIYA	S7
9	SNC16EC010	NAVEENA.M	S7
10	SNC16EC011	NAVYA BHASKARAN	S7
11	SNC16EC012	SREE HARI	S7
12	SNC16EC013	, SUDEEP K S	S7
13	SNC16EC014	VIPIN P V	S7
14	SNC17EC001	ANJANA.P.M	S7
15	SNC17EC002	ASHNA SHIBURAJ	S7
16	SNC17EC003	ASHWIN K RAJ	S5
17	SNC17EC004	ASWATHI.M.V	S5
18	SNC17EC006	GOPIKA RAJ NAMBIAR	S5
19	SNC17EC007	MOHAMMED SHAZ	S5
20	SNC17EC009	SAYOOJ.K	S5
21	SNC17EC010	SHREYALAKSHMI.M	S5
22	SNC17EC011	SREEROOP PRASAD	S5
23	SNC17EC013	T.P.MALAVIKA SAJEEV	S5
24	SNC17EC014	VISMAYA MANOHARAN	S5

OF, LEENA A. V.

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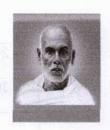
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26	LSNC17EC015	ARYA.A	S5
27	LSNC17EC016	KARTHIKA.T	S5
28	SGT17EC005	RASHMITHA K	S5
29	SNC18EC001	ASWATHI ASHOKAN	S3
30	SNC18EC002	DHANUSH PUTHALATH	S3
31	SNC18EC003	HRITHIKA.K.V	\$3
32	SNC18EC004	MABITHA.C	S3
33	SNC18EC005	REMNA.P	S3
34	SNC18EC006	SNEHA SURENDRAN.N	S3
35	SNC18EC007	VRINDA RAMACHANDRAN K	S3
36	2019ECE003	ARJUN ASHOK K	S1
37	2019ECE001	JITHIN SASIDHARAN NV	S1
38	2019ECE002	KEERTHANA C V	SI
39	2019ECE006	MARIYAMBI	SI
40	2019ECE004	SANISHMA SACHITHANAND	SI
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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ATTENDANCE -DAY 2

SI.No	Name	Class	Signature
1	Afeefa K	S7	1 leginature
2	Anagha P	S7	Anto
3	Anjali Babu K	S7	Nulabo
4	Aryasree Vijayraj D	S7	1
5	Aswathi K T	S7	Thur 1
6	Athena Anil	S7	Alex
7	Athulya K C	S7	weth we
8	Harsha Sankar	S7	Frence
9	K P Anupriya	S7	autie.
10	Naveena M	S7	Luin
11	Navya Bhaskaran	S7	Naco
12	Sreehari	S7	8.00
13	Sudeep K S	S7	000
14	Vipin P V	S7	1 Auto
15	Vismitha Pramod	S7	1/18millo
16	Anjana.P.M	S5	estu)
17	Ashna Shiburaj	S5	Selego
18	Ashwin K Raj	S5	delmi
19	Aswathi.M.V	S5	Dar
20	Rashmitha K	S5	22
21	Gopika Raj Nambiar	S5	P. A.h.
22	Mohammed Shaz	S5	Sian
23	Sayooj.K	S5	Roosey
24	Shreyalakshmi.M	S5	Sheer Late
25	Sreeroop Prasad	3172 S5	An
26	T.P.Malavika Sajeev	S5	Helend
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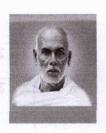
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30	Aparna Sajikumar	S3	Ap-same
31	Aswathi Ashokan	ED BY SELF BHAKIEFS V	do
32	Dhanush Puthalath	S3	Dhanus
33	Hrithika K V	S3	Hnothy.
34	Mabitha C	S3	Malita
35	Remna P	S3	Donna
36	Sneha Surendran N	S3	Sandy.
37	Vrinda Ramachandran	S3	da
38	Arjun Ashok K	S1 jungsji	Ay Ash
39	JithinSasidharan N V	S1	July
40	Keerthana C V	S1	NO.
41	Mariyambi	S1	(Va)
42	Sanishma Sachithanand	S1	Dowl

Dr. LEENA A. V.
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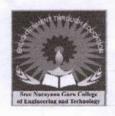
ATTENDANCE -DAY 3

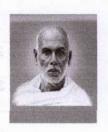
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1	Afeefa K	S7	Alex
2	Anagha P	S7	Availe.
3	Anjali Babu K	S7	Avend
4	Aryasree Vijayraj D	S7	Des
5	Aswathi K T	S7	Ada
6	Athena Anil	S7	Ata
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8	Harsha Sankar	S7	Harring
9	K P Anupriya	S7	durhas
10	Naveena M	S7	Uns
11	Navya Bhaskaran	S7	Kloud
12	Sreehari	S7	San I
13	Sudeep K S	S7	3. Jak
14	Vipin P V	S7	Vila
15	Vismitha Pramod	S7	Mounths
16	Anjana.P.M	S5	And
17	Ashna Shiburaj	S5	Alas
18	Ashwin K Raj	S5	Silne
19	Aswathi.M.V	S5	Ro
20	Rashmitha K	S5	Dans
21	Gopika Raj Nambiar	S5	Red.J.
22	Mohammed Shaz	S5	Stor
23	Sayooj.K	S5	Seekon
24	Shreyalakshmi.M	S5	Strevel John
25	Sreeroop Prasad	S5	Aus
26	T.P.Malavika Sajeev	S5	Palada
27	Vismaya Manoharan	S5	Vamaya
28	Arya.A	Xus34	der

29	Karthika.T	7.9AV 3 S3 2	Las
30	Aparna Sajikumar	S3	Apan
31	Aswathi Ashokan	EZ EN SKLEIBHAKTHI SANIV	da
32	Dhanush Puthalath	A JUNEATAN S3 CHOMEN	Dhang
33	Hrithika K V	S3	thethy
34	Mabitha C	S3	Roberto
35	Remna P	IOMARZIT S3	Penns
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37	Vrinda Ramachandran	S3	VP.
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40	Keerthana C V	S1 5	a
41	Mariyambi	S1 18/4	10
42	Sanishma Sachithanand	S1	Varla

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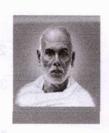
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ATTENDANCE -DAY 1

SI.No	Name	Class	Signature
1	Afeefa K	S7	Afron
2	Anagha P	<b>S7</b>	America
3	Anjali Babu K	S7	Apples
4	Aryasree Vijayraj D	S7	- Soull
5	Aswathi K T	S7	Astria
6	Athena Anil	S7	Ab
7	Athulya K C	S7	Achum
8	Harsha Sankar	S7	Hanne
9	K P Anupriya	S7	Diduit
10	Naveena M	S7	A Consumer
11	Navya Bhaskaran	S7	No bygg
12	Sreehari	S7	Laver
13	Sudeep K S	S7	Dave
14	Vipin P V	S7	Inpur
15	Vismitha Pramod	S7	Two
16	Anjana.P.M	S5	Snamo
17	Ashna Shiburaj	S5	Lelione
18	Ashwin K Raj	S5	M. Lun
19	Aswathi.M.V	S5	1
20	Rashmitha K	S5	20
21	Gopika Raj Nambiar	S5	Colde
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26	T.P.Malavika Sajeev	S5	Malanto
27	Vismaya Manoharan	S5	Seriago
28	Arya.A	\$3	Skya

29	Karthika.T	S3	lac
30	Aparna Sajikumar	S3	Ap ana
31	Aswathi Ashokan	S3	
32	Dhanush Puthalath	S3	Chamb.
33	Hrithika K V	S3	thether
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37	Vrinda Ramachandran	S3	Van-
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41	Mariyambi	S1	De .
42	Sanishma Sachithanand	S1	Sacreta





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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ATTENDANCE -DAY 4

SI.No	Name	Class	Signature
1	Afeefa K	S7	Alex.
2	Anagha P	S7	dians.
3	Anjali Babu K	S7	Angalia.
4.	Aryasree Vijayraj D	S7	Drys.
5	Aswathi K T	S7	den.
6	Athena Anil	S7	De.
7	Athulya K C	S7	Affran
8	Harsha Sankar	S7	laule.
9	K P Anupriya	S7	duys.
10	Naveena M	S7	Jun 1
11	Navya Bhaskaran	S7	Marie .
12	Sreehari	S7	Soul
13	Sudeep K S	S7	Ludah
14	Vipin P V	S7	A LIDAN
15	Vismitha Pramod	S7	Mounte
16	Anjana.P.M	S5	dage
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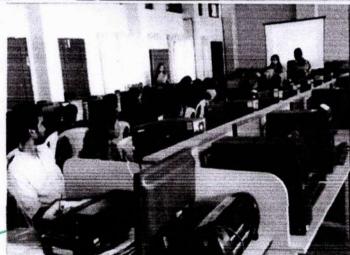
#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### WORKSHOP ON DIGITAL IMAGE PROCESSING USING PYTHON

The Department of Electronics and Communication Engineering at Sree Narayana Guru College of Engineering and Technology conducted a workshop on digital image processing using python from 04.11.2019 to 08.11.2019. The aim of the workshop is to introduce participants to the fundamentals of digital image processing.

The workshop began with warm welcome by Prof. Raveendran K, HoD, ECE who introduced the participants to the objectives of the workshop. This Five day workshop's objectives were to familiarize participants with the Python programming language and give them the foundational knowledge would need to use Python in a variety of applications. Subitha M. B. planned the event, while Er. Sreelakshmi C., an expert Python trainer, led the training. 40 eager participants from a variety of JOHN backgrounds, including complete novices and those with some prior coding experience, attended the class.





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SREE NARAYANA GURU COLLEGO
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The topics include introduction, image preprocessing, image transformation, image segmentation, etc.

The practical exercises were given to put their new knowledge into practice during the program. Participants gave the workshop overwhelmingly excellent reviews. Participants praised the thorough treatment of image processing concepts and the practical learning style.



## WORKSHOP ON DIGITAL IMAGE PROCESSING USING PYTHON CERTIFICATE

This certificate is issued to

Mr./Ms ARYAA

For Participating in the five days Hands On Training on Embedde C,C++ at Sree Narayana Guru College of Engineering and Technology, Payyanur from 04-11-2019 to 08-11-2019

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COORDINATOR

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#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Workshop on

#### DIGITAL IMAGE PROCESSING **USING PYTHON**

E: Excellent	VG : Very Good	G : Good	S : Satisfactory
	<del> </del>		
	,	1/	
	E: Excellent	E: Excellent VG : Very Good	E: Excellent VG : Very Good G : Good

Participant Name	: Rashmetha.K
------------------	---------------

Semester: SE

Suggestions for improvement: Achanced Python workshop is new Signature of Participant





(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P. O., PAYYANUR, KANNUR, KERALA - 670307

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A Workshop on

#### DIGITAL IMAGE PROCESSING **USING PYTHON**

Parameter	E: Excellent	VG : Very Good	G : Good	S : Satisfactory
Registration				
Program Management	· ·			
Food and Hospitality				
Event conduction	/			

Participant Name : Althya K C

Semester: 57

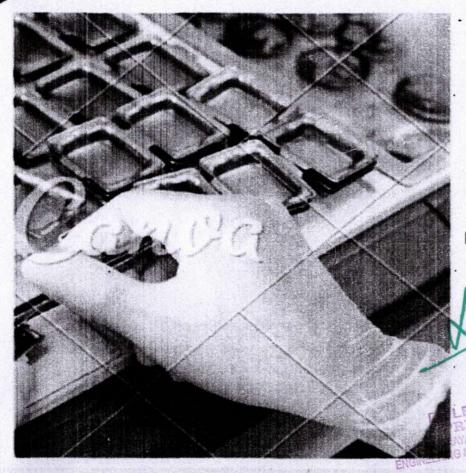
Suggestions for improvement: Rapecting more events

Signature of Participant



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR, KANNUR, KERALA

Promoted by Sree Bhakthi Santvardhini Yogara, (Affiliated to KTU, Recognized by AICTE)



### HANDS ON TRAINING ON EMBEDDED C,C++

ORGANIZED BY
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING

On 25/07/2018 -29/07/2018

@SCL,ECE



### COLLEGE OF ENGINEERING & TECHNOLOGY SREE NARAYANA GURU



(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### HANDS ON TRAINING ON EMBEDDED C, C++

### SCHEDULE

SI.No	Date	Time	Topic
1	25-07-2018	9.00 am	Introduction to Embedded Systems and C
		to	
	G.	12.30 pm	
		1.30 pm	Basics of Microcontrollers. Introduction to C
		to	Programming
		4.30 pm	Data types, operators, and expressions
2	26-07-2018	9.00 am	Advanced C Programming for Embedded
		to	Systems
		12.30 pm	Control flow statements (if, else,
			switch). Functions and modular programming.
		1.30 pm	Arrays and pointers in C. Memory
		to	management in C
	74	4.30 pm	
3	27-07-2018	9.00 am	Embedded Systems Architecture.
		to	Microcontroller architecture basics.
		12.30 pm	
		1.30 pm	Input/Output (I/O) operations and interfacing.
		to	Timers and counters
		4.30 pm	
4	28-07-2018	9.00 am	Introduction to C++. Basics of Object-Oriented
		to	Programming (OOP).
		12.30 pm	
		1.30 pm	Classes and objects in C++.Memory
		to	management in C++
		4.30 pm	
5	29-07-2018	9.00 am	Embedded C and C++ Project Work.Select a
		to	small-scale embedded project.Develop the
		12.30 pm	project using Embedded C and C++.
		1.30 pm	Hands-on debugging and testing.Project
		to	presentation and feedback session
		4 30 nm	



### COLLEGE OF ENGINEERING & TECHNOLOGY SREE NARAYANA GURU



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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### HANDS ON TRAINING ON EMBEDDED C, C++

### SYLLABUS

SI.No	Topic
-	Introduction to Embedded Systems and C Programming
	Overview of Embedded Systems
	<ul> <li>Basics of Microcontrollers</li> </ul>
	Introduction to C Programming
	<ul> <li>Data types, operators, and expressions</li> </ul>
2	Advanced C Programming for Embedded Systems
	<ul> <li>Control flow statements (if, else, switch)</li> </ul>
	Functions and modular programming
	<ul> <li>Arrays and pointers in C</li> </ul>
	Memory management in C
3	Embedded Systems Architecture
	Microcontroller architecture basics
	<ul> <li>Input/Output (I/O) operations and interfacing</li> </ul>
	<ul> <li>Timers and counters</li> </ul>
4	Introduction to C++
	<ul> <li>Basics of Object-Oriented Programming (OOP)</li> </ul>
	<ul> <li>Classes and objects in C++</li> </ul>
	<ul> <li>Memory management in C++</li> </ul>
5	Embedded C and C++ Project Work
	<ul> <li>Select a small-scale embedded project</li> </ul>
	<ul> <li>Develop the project using Embedded C and C++</li> </ul>
	<ul> <li>Hands-on debugging and testing</li> </ul>
	<ul> <li>Project presentation and feedback session</li> </ul>



### COLLEGE OF ENGINEERING & TECHNOLOGY SREE NARAYANA GURU **PAYYANUR**



(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR) CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### STUDENTS LIST

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF ELECTRONICS &COMMUNICATION ENGINEERING

### PARTICIPANTS LIST IN HANDS ON TRAINING (Day 1)

SI. No.	Name	Signature
1	Adarsh Prakash	Ca)
2	Aswathi Sreekanth	Okton:
3	Gopika C	Charles
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35	Ms. NAMITHA NARAYANAN	- James
36	Ms. LEENA NARAYANAN	8
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38	Ms. AMRUTHA M V	1
39	Ms. KAVYA VINOD	No.

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### PARTICIPANTS LIST IN HANDS ON TRAINING (Day 2)

1         Adarsh Prakash           2         Aswathi Sreekanth           4         Rithin Ramesh           5         Shebana Malath Babu           6         Sheona Sathish           7         Sruthi T K           8         Afeeta K           9         Anagha P           10         Anjali Babu K           11         Aryastee Vijayaraj D           12         Aswathi K T           13         Athena Anil           14         Athulya K C           15         Sudeep K S           16         Sudeep K S           17         Vipin P V           18         Vismitha Pramod           19         Asha Shiburaj           20         Asha Shiburaj           21         Aswathi M V           22         Gopika Raj Nambiar           23         Shreya Lakshmi M           24         T P Malavika Sajeev           25         Arya A           26         Arya A           27         Karthika T           28         Aparna Sajikumar           29         Aswathi Asokan           29         Aswathi A V           30	SI. No.	Name	Signature
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33	Vrinda Ramachandran	(mag.
34	Mr. RAVEENDRAN K	June 3
35	Ms. NAMITHA NARAYANAN	NAME OF THE PARTY
36	Ms. LEENA NARAYANAN	Jan S
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39	Ms. KAVYA VINOD	Jangelow

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

## DEPARTMENT OF ELECTRONICS &COMMUNICATION ENGINEERING

### PARTICIPANTS LIST IN HANDS ON TRAINING (Day 3)

1         Adarsh Prakas           2         Aswathi Sreek           3         Gopika C           4         Rithin Ramesh           5         Shabna Melath           6         Sheona Sathish           7         Sruthi T K           8         Afeefa K           9         Anagha P           10         Anjali Babu K           11         Aryasree Vija           12         Aswathi K T           13         Athena Anil           14         Athulya K C           15         Harsha Sankan           16         Sudeep K S           17         Vipin P V           18         Vismitha Pran           19         Anjana P M           20         Asha Shiburaj           21         Aswathi M V           22         Gopika Raj Na           23         Shreya Laksh           24         T P Malavika	Adarsh Prakash Aswathi Sreekanth Gopika C Rithin Ramesh Shabna Melath Babu Sheona Sathish Sruthi T K Afeefa K Anagha P Anigali Babu K	
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING SO TECHNOLOGY

## DEPARTMENT OF ELECTRONICS &COMMUNICATION ENGINEERING

### PARTICIPANTS LIST IN HANDS ON TRAINING DAY 4

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SREE MARWANA GURU COLLEGE OF ENGINEERING & TROUNDLOOK, PAYYANUR

Mr. RAVEENDRAN K Ms. NAMITHA NARAYANAN Ms. LEENA NARAYANAN Ms. ROSHNI V V Ms. AMRUTHA M V

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### SREE NARAYANA GURU



## COLLEGE OF ENGINEERING & TECHNOLOGY

CHALAKODE P.O., PAYYANUR, KANNUR-670307, KERALA

(PROMOTED BY SREE BHAKTHI SAMVARDHINI YOGAM, KANNUR)

### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

A Brief Report Of Five Days Internship Program On EMBEDDED C AND C++ WITH HANDS-ON-TRAINING on 25-07-2018 to 29-07-2018

The Department Of Electronics and Communication has organized a three days Internship AND C++ in technical collaboration with Armino Embedded & Automation Solutions LLP, Calicut on 25th july to 29th July 2018 at SNGCET, Payyanur. Program on EMBEDDED C

Mr.N.P Sooraj and Mr.Jithesh K of Armino Embedded & Automation Solutions LLP, Calicut were the resource persons for the program. They have a wide industrial experience in the field of Embedded Systems and solutions. Armino is an Indian Domestic Electronic and Automation Company headquartered at Calicut, Kerala. Armino mainly focuses on automation solutions, embedded and Green energy services.

of Embedded C and C++ Systems for S7, S5 and S3 students, which will be useful for their Main objective of this technical and educational program was to introduce the knowledge academic project development and curriculum. The Inaugural function of the Internship Program started with welcome address by Prof. was the chief guest for the function. He inaugurated the workshop. Lt.Col C Preveen felicitated the workshop and Ms Leena Narayanan, Assistant Professor delivered the vote of Raveendran K, H.O.D, Electronics & Communication Engineering Department. The Principal, Dr. V.K. Janardanan thanks.



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After the inaugural session, technical session was started by Mr. N.P Sooraj on the topic "Overview of Embedded Systems". He mentioned briefly about the architecture and application of embedded systems. In the afternoon session simple programs were discussed and different sensors were interfaced with Microcontroller.

Machine Communication was introduced. On the third day concepts of C++ were introduced and On the second day Wireless Communication basics were covered and Machine to also simple C++ programs were discussed. The key focus of the Internship Program was hands-on training on Arduino board and different sensors. In the interactive lab session, Mr. Sooraj explained the basics of Embedded C and demonstrated the above software with few design examples.

33 students and 6 faculty members actively participated and had an excellent learning experience with hands-on training in the internship program.



Students' suggested that workshops of this kind would be very useful for them to learn and The Internship Program ended with a feedback from Ms. Aswathi Sreekanth of S7 ECE. develop the academic projects in more effective manner. The workshop was a great success and marked a milestone to the entire Department of Electronics & Communication Engineering.

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

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# HANDS ON TRAINING ON EMBEDDED C,C++

This Certificate is issued to Ms. AFEEFA K for participating the 5 days Hands On Training On Embedded C<C+ at Sree Narayana Guru College Of Engineering & Technology from 25/07/2018 -29/07/2018

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CO ORDINATOR

### HANDS ON TRAINING\_C\_C++

Publish analytics

Copy Were the materials and content relevant to your expectations and needs? 9 responses



YES No

Copy Did the instructors encourage questions and provide clear explanations? 9 responses



YES No

Did you feel that you had sufficient time to complete the hands-on activities?

Copy





Yes No

Were the instructions for the hands-on activities clear and easy to follow?



No Xes

How would you rate the knowledge and expertise of the instructors? 9 responses

Copy



Do you have any suggestions for making the workshop more engaging or informative? Tresponse

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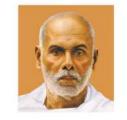
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### Sree Narayana Guru College of Engineering & Technology



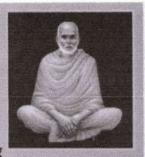
CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEER
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

Promoted by Sree Bhakthi Samvardhini Yogam, Kannur Affiliated to KTU & Recognised by AICTE, New Delhi Payyanur, Kannur, Kerala, Pin-670307 Office-04985-201989, 7812911912 Email-info@sngcet.org





### ONE DAY HANDS-ON TRAINING ON PCB DESIGN AND FABRICATION

For all EEE Students

Organized by Department of Electrical & Electronics Engineering

- from 30-03-2023 to 03-04-2023
- © 9.00am to 4.30pm

  Venue: LED Manufacturing unit

Staff co ordinators

Ms. Archana C P Assistant Professor Department of EEE

Mr. Sreeraj T K Lab Instructor Department of EEE

Student co ordinators

Mr. Vaishnav T V S8 EEE Ms. Aswathi P P Dr. LEENA A. V.
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### 5 Days Workshop on PCB DESIGN AND FABRICATION PROGRAM:

30<sup>th</sup> March to 03<sup>rd</sup> April, 2023

DAY 1			
Date	Time		
30-03-2023	09:30 AM-09.45 AM	Introduction by Coordinator  Ms. Archana C P  AP EEE, SNGCET	
	09:45AM -10:00AM	Departmental address by  Mr. Abhilash Krishnan T K  HoD EEE, SNGCET	
	10.00 AM-12:00 PM	Introduction to PCB  Ms. Archana C  AP EEE, SNGCET	
	01:00PM-3:30PM	Design Concepts of PCB Mr. Sreeraj. T K Lab Instructor EEE, SNGCET	

		DAY 2
	09:30 AM-12:00 PM	PCB layer Explanation
31-03-2023		Ms. Archana C P
		Assistant Professor EEE, SNGCET
	01:00 PM-3:30 PM	Manufacturing Design
		Mr. Sreeraj, T K
		Lab Instructor EEE, SNGCET
		DAY 3
		Hands on training and PCB design
	09:30 AM-12:00 PM	Ms. Archana C P
		Assistant ProfessorEEE, SNGCET
	01:00 PM-3:30 PM	Hands on training and Explanation of design rules Mr. Sreeraj. T K
		Lab Instructor EEE, SNGCET

	.1	DAY 4
02-04-2023	09:30 AM-12:00 PM	PCB fabrication process  Mr. Sreeraj.T K  Lab Instructor EEE, SNGCET
		Hands on training.
	01:00 PM-3:30 PM	Mr. Sreeraj, T K  Lab Instructor  Dept. of EEE, SNGCET
		DAY 5
03-04-2023	09:30 AM-12:00 PM	Hands on practice  Ms. Archana C P  Assistant Professor  Dept. of EEE, SNGCET
	01:00 PM-3:00 PM	Hands on practice  Ms. Archana C P  Assistant Professor  Dept. of EEE, SNGCET
	3.00 PM -4.00 PM	Feedback session From students  Certificate distribution ceremony Mr. Abhilash Krishnan T K
	7	HoD Dept. of EEE, SNGCET

### **SYLLABUS**

### **PCB Design and Fabrication**

### Day 1: Introduction to PCBs and Basic Design Concepts

### Morning Session:

Introduction to Printed Circuit Boards (PCBs): Definition, importance, and applications.

Overview of the PCB design process: From schematic to layout.

Introduction to common PCB design software tools (e.g., Eagle, Altium, KiCad).

### Afternoon Session:

Understanding basic design concepts:

PCB layers: Types and functions.

Component placement: Considerations and best practices.

Introduction to routing traces: Signal paths, trace width, and clearance.

### Day 2: Advanced PCB Design Techniques

### Morning Session:

Understanding PCB layer stack-up: Importance and configuration.

Signal integrity considerations: Impedance matching, signal integrity analysis.

Designing for EMI/EMC compliance: Grounding techniques, signal shielding.

### Afternoon Session:

High-speed design principles: Differential pairs, controlled impedance routing.

Design for manufacturability (DFM) guidelines: Design rule checks (DRC), panelization.

### Day 3: PCB Design Software Proficiency

### Morning Session:

Practical session: Hands-on training with PCB design software.

Familiarization with the user interface, toolbars, and shortcuts.

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Creating schematics: Adding components, connecting nets.

### Afternoon Session:

Layout design: Placing components, routing traces, ground planes.

Introduction to design constraints and design rules.

### **Day 4: PCB Fabrication Process**

### Morning Session:

Overview of the PCB fabrication process: Steps involved from design to finished board.

Understanding Gerber files: Format, layers, and their role in fabrication.

Selection of PCB materials: Types, properties, and considerations.

### Afternoon Session:

Design optimization for fabrication: Panelization, copper weight, solder mask considerations.

Introduction to PCB assembly (PCBA): SMT vs. Through-hole, assembly techniques.

### Day 5: Hands-On Fabrication and Design Review

### Morning Session:

Hands-on practical session: Participants design their PCB layouts using software.

Guidance provided on optimizing designs for fabrication and assembly.

### Afternoon Session:

Design review and feedback: Participants present their designs for review and critique.

Discussion on common mistakes and how to avoid them.

Q&A session: Addressing participants' queries and clarifications.

Conclusion and Certificate Distribution.

This 5-days training syllabus provides a structured approach to learning PCB design and fabrication, covering essential concepts, advanced techniques, practical software training, and hands-on experience. Each day focuses on specific aspects of PCB design and fabrication, gradually building participants' skills and knowledge throughout the training program.

### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### HANDS ON TRAINING ON PCB DESIGN AND FABRICATION

### **Registration Form**

Date: 30/03/2023 to 03/04/2023 Venue: Led Bulb Manufacturing Unit

Sl.No	Name of Students	Semester	Branch
1	VYSHNAV TV	S8	EEE
2	DEVI KEERTHANA	S8	EEE
3	ASWATHI PP	S6	EEE
4	ADHIN O	S4	EEE
5	ANURAJ N	S4	EEE
6	NIHAD T	S4	EEE
7	ADITHYA K	S2	EEE
8	DIYA KC	S2	EEE
9	ANUVIND NK	S2	EEE
10	VISMAYA	S2	EEE

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING HANDS ON TRAINING ON PCB DESIGN AND FABRICATION ATTENDANCE SHEET Date: 30/03/2023 to 03/04/2023 Venue: Led Bulb Manufacturing Unit ATTENDANCE Sl.No Name of Students 30-03-2023 31-03-2023 01-04-2023 02-04-2023 03-04-2023 th VYSHNAV TV 2 DEVI KEERTHANA KD: ASWATHI PP 3 NMI\_ ADHIN O 4 5 ANURAJ N NIHAD T 6 7 ADITHYA K 8 DIYA KC 9 ANUVIND NK 10 VISMAYA



### **SREE NARAYANA GURU COLLEGE OF ENGINEERING &**

### **TECHNOLOGY**

### ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT

### HANDS ON TRAINING ON PCB DESIGN AND FABRICATION

The Department of Electrical and Electronics Engineering conducted five days Hands on training on PCB Design and Fabrication for all students of our college from 30 March 2023 to 03 April 2023. A Total of 10 students participated in the training session. The students gained hands on experience in PCB Design and Fabrication.

The event was inaugurated by Dr. Leena A V, Principal, SNGCET. Welcome addresse was delivered by Mr. Abhilash Krishnan (HoD, EEE). Mr. Archana C P, (AP. EEE) delivered felicitation speech. Welcome address delivered by Ms. Aswathi PP, Student Coordinator and Mr. Vaishnav TV, student co coordinator delivered vote of thanks.

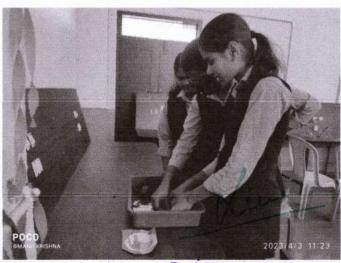
The 5-days training session was handled by Mr. Sreeraj, the lab instructor EEE.

The primary objectives of the training were:

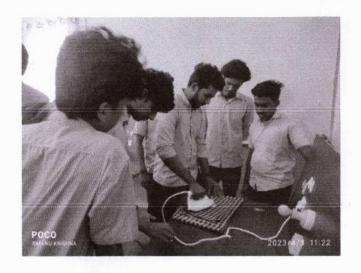
To familiarize participants with the fundamentals of PCB design. To provide practical training on using PCB design software. To educate participants about the PCB fabrication process. To enable participants to create their PCB designs and fabricate them.

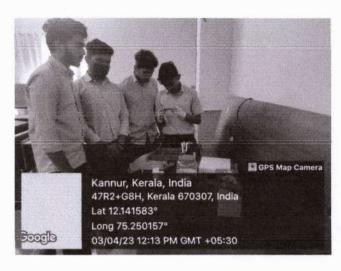
Participants gained a comprehensive understanding of PCB design principles and techniques. Hands-on experience enabled participants to create their PCB designs effectively. Participants learned how to optimize designs for fabrication, ensuring manufacturability and reliability. Increased confidence among participants in using PCB design software and submitting designs for fabrication.



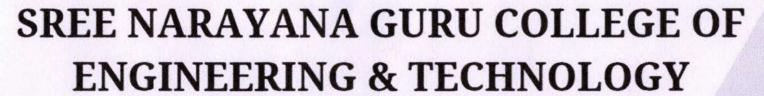


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(Affliated to APJ Abdul Kalam Technological University and Approved by AICTE, New Delhi)

Chalakkode P.O., Payyanur, Kannur-670307, Kerala

### **CERTIFICATE OF COMPLETION**

This is to crtify that

### **VYSHNAV TV**

has suscessfully completed Five days hands on training program on PCB Design and Fabrication organised by Department of Electrical and Electronics Engineering from 30-03-2023 to 03-04-2023

Coordinator

Ms. Archana CP Assistant Professor Driles

HoD- EEE

Mr. Abhilash Krishnan T K

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Dr.Leen A V



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### HANDS ON TRAINING ON PCB DESIGN AND FABRICATION

### FEEDBACK FORM

Thank you for participating in our 5-days PCB training session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

### **Participant Information:**

Name: Vyshnuv TV

Date: 03/04/23

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- 2. Relevance of Training Content:
- Highly Relevant
- Relevant
- · Somewhat Relevant
- Not Relevant
- 3. Clarity of Instruction:
- Very Clear
- Clear
- Somewhat Clear
- Unclear
- 4. Quality of Training Materials:
- Excellent
- Good
- Fair
- Poor

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5.	Effectiveness of Hands-on Exercises:
	Very Effective
	Effective
•	Somewhat Effective
•	Ineffective
6.	Interaction with Instructor:
•	Excellent
	Good
	Fair
•	Poor
7.	Likelihood of Recommending this Training to Others:
•	Very Likely
•	Likely
•	Neutral
•	Unlikely
•	Very Unlikely
8.	Did the training session encourage you to learn more about LED technology?
•	Yes /
•	No
9.	Overall Training Experience:
•	Excellent
•	Good
•	Fair
•	Poor
10.	Additional Comments or Suggestions:
	Xun
	Good
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	SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR

Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.



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### HANDS ON TRAINING ON PCB DESIGN AND FABRICATION

### **FEEDBACK FORM**

Thank you for participating in our 5-days PCB training session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

### **Participant Information:**

Name: Devikees Thung

Date: 3/4/23

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- 2. Relevance of Training Content:
- · Highly Relevant
- Relevant
- Somewhat Relevant
- Not Relevant
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- 4. Quality of Training Materials:
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- 5. Effectiveness of Hands-on Exercises:
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- · Somewhat Effective
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- 6. Interaction with Instructor:
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- 7. Likelihood of Recommending this Training to Others:
- Very Likely
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- Neutral
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- Very Unlikely
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- Yes
- · No
- 9. Overall Training Experience:
- Excellent
- Good
- Fair
- Poor

10. Additional Comments or Suggestions:

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### **Participant Information:**

Name:

Aswart PD

Date:

03/04/23

Training Session Evaluation:

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### FEEDBACK FORM

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### **Participant Information:**

Name: ADHIN.O

Date: 03-04-2023

Training Session Evaluation:

- 1. Overall Satisfaction:
- · Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- 2. Relevance of Training Content:
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- 8. Did the training session encourage you to learn more about LED technology?
- Yes
- No
- 9. Overall Training Experience:
- Excellent
- Good
- Fair
- Poor

10. Additional Comments or Suggestions:

Excellent

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Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.



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# DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Presents
Five days Training Program
on

# LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

Participants: Students of EEE

: 08-10-2021 to 12-10-2021



: 09.00 am to 4.30 pm



: LED Bulb Manufacturing unit

Staff Coordinator

Mr. Manu C Assistant Professor Dr. LEENA A. V.
PRINCIPAL

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ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Student Coordinator

Ms. Anusha Jyothi S5 - EEE



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#### DEPARTMENTOFELECTRICAL AND ELECTRONICS ENGINEERING

#### 5 DAYS WORKSHOP ON

## LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM: 8<sup>TH</sup> OCTOBER TO 12<sup>TH</sup> OCTOBER, 2021

	DA	Y 1	
DATE	TIME		
	9.00 AM -9.15 AM	Introduction by Coordinator  Mr. Manu C,  AP, EFE, SNGCET	
	9.15 AM - 9.30AM	Departmental address by	
		Mr. Abhilash Krishnan T K	
		HoD EEE, SNGCET	
10-08-2020	09:30AM-12:00PM	Introduction to LED bulb and Soldering Mr. Manu C, AP, EFE, SNGCET	
		Demonstration practice through hole	
	02:30PM-4:30PM	soldering technique	
		Mr. Sreeraj. T K Lab Instructor EEE, SNGCET	
	D	AY2	
		Soldering Practice	
	09:30 AM-12:30 PM	Mr. Manu C,	
		AP, EEE, SNGCET	
11-08-2020		Soldering Practice	
	01:30PM-4:30PM	Mr. Manu C,	
		AP, EEE, SNGCET	
	D	AY3	
12 09 2020	09:30 AM-12:30 PM	Advanced Soldering Technique and PCB	
12-08-2020	09:30 AM-12:30 PM	<b>design</b> Mr. Sreeraj. T K	
		Lab Instructor EEE, SNGCET	
		Trouble Shooting soldering issues on	
1	01:30PM-4:30PM	sample board	
	01:30FW-4:30FW	Mr. Sreeraj. T K	
		Lab Instructor EEE, SNGCET	

	DA	AY 4
13-08-2020	09:30 AM-12:30 PM	Over view of LED bulb manufacturing process Mr. Manu C, AP, EEE, SNGCET
	01:30PM-4:30PM	Demonstration LED bulb manufacturing.  Mr. Manu C,  AP EEE, SNGCET
	D	AY 5
	09:30 AM-12:30 PM	Hands on practice Mr. Manu C, AP EEE, SNGCET
14.09.2020	01:30PM-3:00PM	Hands on practice Mr. Manu C, AP EEE, SNGCET
14-08-2020		Feedback session From students
	3.00 PM-4.30 PM	Certificate distribution ceremony Mr. Abhilash Krishnan T K HOD EEE, SNGCET



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### LED Bulb Manufacturing with Soldering Practice

#### Introduction

An LED lamp or LED light bulb is an electric light for use in light fixtures that produces light using one or more light-emitting diodes (LEDs). LED lamps have a lifespan many times longer than equivalent incandescent lamps, and are significantly more efficient than most fluorescent lamps, with some LED chips able to emit up to 303 lumens per watt (as claimed by Cree and some other LED manufacturers). However, LED lamps require an electronic LED driver circuit when operated from mains power lines, and losses from this circuit mean the efficiency of the lamp is lower than the efficiency of the LED chips it uses. The most efficient commercially available LED lamps have efficiencies of 200 lumens per watt (Lm/W).

Similar to incandescent lamps (and unlike most fluorescent lamps), LEDs come to full brightness immediately with no warm-up delay. Frequent switching on and off does not reduce life expectancy as with fluorescent lighting. Light output decreases gradually over the lifetime of the LED (see Efficiency droop section).

Some LED lamps are made to be a directly compatible drop-in replacement for incandescent or fluorescent lamps. LED lamp packaging may show the light output in lumens, the power consumption in watts, the colour temperature in Kelvin or a colour description such as "warm white", "cool white" or "daylight", the operating temperature range, and sometimes the equivalent wattage of an incandescent lamp delivering the same output in lumens.

#### Flow of Current

LEDs run on direct current (DC), whereas mains current is alternating current (AC) and usually at much higher voltage than the LED can accept. LED lamps can contain a

1

circuit for converting the mains AC into DC at the correct voltage. These circuits contain rectifiers, capacitors, and may have other active electronic components, which may also permit the lamp to be dimmed. In an LED filament lamp, the driving circuit is simplified because many LED junctions in series have approximately the same operating voltage as the AC supply.

#### **Description of LED Bulb Machine**

Machinery for LED Bulb Unit includes the following:

- · Tikki Making Machine
- Punching Machine
- Cutter
- Iron
- Solder
- Nuts
- Paste

These machines are used to produce LED Bulb substance from the raw material. With the help of this machine the work of punching, cutting, pasting completes in a very short span.

#### **LED Bulb Manufacturing Process**

- Take Body & diffuser of Bulb separately.
- · Adjust in the tikki machine
- . Now soldering the PCB with diffuses wire.
- Cut the extra wire in the PCB unit.
- Put B22 cap on the PCB
- Now press it with punching machine.
- Packaging
- · Transport.

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#### **Training Objectives:**

Understanding LED Technology: Participants were introduced to the fundamentals of LED technology, including the working principles, components, and advantages over traditional lighting sources.

Hands-on Soldering Practice: A significant portion of the training program was dedicated to hands-on soldering practice. Participants worked with actual LED components, circuit boards, and soldering equipment to gain practical experience in soldering connections.

Manufacturing Processes: The training program covered the entire manufacturing process of LED bulbs, from component assembly to final product testing. This included soldering techniques, PCB (Printed Circuit Board) assembly, and encapsulation methods.

Safety Practices: Safety is a top priority in any manufacturing environment. Participants received comprehensive training on safety protocols, including handling of hazardous materials, use of protective equipment, and emergency procedures.

Efficiency and Optimization: Participants learned about lean manufacturing principles and techniques to optimize production processes, minimize waste, and improve overall efficiency.

#### **Training Methodology:**

The training program employed a combination of theoretical instruction, demonstrations, and extensive hands-on practice sessions. Participants were provided with soldering stations equipped with soldering irons, solder, flux, and other necessary tools. Experienced instructors supervised the soldering practice and provided feedback and guidance to participants.

#### **Programme Outcomes**

After the courses the candidate will learn

- Enhanced understanding of LED technology and its applications.
- Proficiency in various soldering techniques used in LED bulb manufacturing.
- Hands-on experience in soldering connections on LED components and circuit boards.
- Understanding of quality control standards and inspection techniques for soldered joints.
- Ability to troubleshoot and rectify common soldering issues effectively.
- · Hands-on experience on LED Bulb Assembling and repairing
- To understand, various electronic & electrical components, materials and their specific properties & usages.

#### **SYLLABUS**

#### Day 1: Introduction to LED Technology and Soldering Basics

#### · Morning Session:

Basics of Electricity and Electronics

Introduction to LED technology: principles, components, and applications.

Use of Tools & Soldering Process.

Overview of soldering: types of solder, flux, soldering equipment.

#### Afternoon Session:

Demonstration: through-hole soldering technique.

Hands-on practice: through-hole soldering exercises.

#### Day 2: Surface Mount Soldering and Quality Control

#### Morning Session:

Surface mount soldering: techniques and considerations.

Quality control in soldering: visual inspection standards and defect identification.

Understand the functionality of multi-meter, Explain different modes of testing in multi-meter.

#### Afternoon Session:

Demonstration: surface mount soldering technique.

Hands-on practice: surface mount soldering exercises.

#### Day 3: Advanced Soldering Techniques and Troubleshooting

#### Morning Session:

Advanced soldering techniques: reflow soldering, desoldering, and component replacement.

Troubleshooting soldering issues: common problems and solutions.

PCB Design.

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#### Afternoon Session:

Practical exercises: troubleshooting soldering issues on sample boards.

#### Day 4: LED Bulb Manufacturing Process

#### Morning Session:

Overview of LED bulb manufacturing process: component assembly, PCB assembly

Safety considerations in LED bulb manufacturing.

#### Afternoon Session:

Demonstration: LED bulb manufacturing process.

Lean manufacturing principles: optimizing production processes and minimizing waste.

#### Day 5: Optimization, Efficiency, and Final Assessment

#### Morning Session:

Hands-on practice: assembling LED bulbs with soldered connections and testing

#### Afternoon Session:

Hands-on practice: assembling LED bulbs with soldered connections and testing

Feedback session: review of individual performance and areas for improvement.

Certification ceremony: distribution of training completion certificates.

Note: Each day will include breaks for refreshments and rest to ensure participants remain engaged and focused throughout the training program. Additionally, instructors will provide continuous guidance and support during hands-on practice sessions to maximize learning outcomes.

Dr. LEENA

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#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

#### **Registration Form**

Date:8/10/2021 to 12/10/2021		Venue: Led Bulb Manufacturi Unit		
Sl.No	Name of Students	Semester	Branch	
1	ABHINAV C	S3	EEE	
2	ASWATHI PP	S3	EEE	
3	AMAL KP	S1	EEE	
4	HRISHIKESH	S1	EEE	
5	SHINOY BIJU	S1	EEE	
6	ANUSHA JYOTHI	S5	EEE	
7	VISHAL	S5	EEE	
8	P P NIDHIN RAJ	S7	EEE	
9	ASWANTH VALSAN MV	S7	EEE	
10	NIHAD T	S5	EEE	

Keen

### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

#### ATTENDANCE SHEET

Date: 8/10	0/2021 to 12/10/2021		Venue: I	Led Bulb Manufact	uring Unit	
	2			ATTENDANCE		
Sl.No	Name of Students	08-10-2021	09-10-2021	10-10-2021	11-10-2021	12-10-2021
1	ABHINAV C	Ablinar	X Dunau	Ablinan	Minau	Millian
2	ASWATHI PP	asso	Osu	Osa	Que.	000
3	AMAL KP	PAmal	Popul	Famil	Fruit	Hand
4	HRISHIKESH	house	hos	hoor	hoon	Shotoh
5	SHINOY BIJU	diver	Diver?	June	han	Junes
6	ANUSHA JYOTHI	Anth	duth	duto	douth	dutch
7	VISHAL	J.	198	199	08	08
8	P P NIDHIN RAJ	PIG	PRaj	£Rej	PRaj	PRaj
9	ASWANTH VALSAN MV	Awy	Samo	A200	An	Am
10	NIHAD T	Tusto	Duelp	Dans	D	07

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## REPORT ON LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

The Department of Electrical and Electronics Engineering conducted Five days LED manufacturing training session and soldering practice for students of Electrical and Electronics Engineering from 8/10/2021 to 12/10/2021. A Total of 10 students participated in the training session. The students gained hands on experience in manufacturing LED bulb.

The event was inaugurated by Dr. Leena A V, Principal, SNGCET. Welcome addresse was delivered by Mr. Abhilash Krishnan (HoD, EEE). Dr. Susan Ebraham (Dean Academics) and Mr. Manu C (AP, EEE) delivered felicitation speech and Ms. Anusha Jyothi, student coordinator delivered vote of thanks. The inaugural session concluded at 10:00 a.m., after which the training session started.

The objective of the 5-days LED manufacturing and soldering practice training program was to provide participants with a comprehensive understanding of LED technology, manufacturing processes, soldering techniques, quality control measures, and troubleshooting methods. Through a combination of theoretical sessions and hands-on practical exercises, the program aimed to equip participants with the necessary skills to excel in LED manufacturing environments.

Participants developed a solid understanding of LED technology, manufacturing processes, and soldering techniques. Hands-on practice enabled participants to gain confidence in handling soldering equipment and performing assembly tasks. Quality control and testing training equipped participants with the ability to identify defects and ensure product quality. Advanced techniques and troubleshooting sessions prepared participants to tackle complex manufacturing issues effectively.

The 5-days LED manufacturing and soldering practice training program successfully provided participants with a well-rounded skill set essential for thriving in LED manufacturing environments. By combining theoretical knowledge with practical experience, participants are now equipped to contribute effectively to the production of high-quality LED products. Continued practice and refinement of these skills will further enhance participants' capabilities in this fielder narayana guru college of Engineering a Technology. Paryanus





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(Affliated to APJ Abdul Kalam Technological University and Approved by AICTE, New Delhi)
Chalakkode P.O, Payyanur, Kannur-670307, Kerala

## **CERTIFICATE OF COMPLETION**

This is to certify that

#### VISHAL K

has suscessfully completed. Five days training program on LED Bulb manufacturing and soldering practice organised by Department of Electrical and Electronics Engineering from O8-10-2021 to 12-10-2021

Coordinator

Mr. Manu C

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Pricipal
Dr. Suresan Pareth



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

#### FEEDBACK FORM

Thank you for participating in our 5-day LED bulb training session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

#### **Participant Information:**

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
  - Neutral
  - Dissatisfied
  - Very Dissatisfied
  - 2. Relevance of Training Content:
  - Highly Relevant
  - Relevant
  - · Somewhat Relevant
  - Not Relevant
  - 3. Clarity of Instruction:
- Very Clear
  - Clear
  - Somewhat Clear
  - Unclear
- 4. Quality of Training Materials:
- Excellent
  - Good
  - Fair
  - Poor
- 5. Effectiveness of Hands-on Exercises:

Very Effective

- Effective
- · Somewhat Effective
- Ineffective
- 6. Interaction with Instructor:
- Excellent
- 6 Good
- Fair
- Poor
- 7. Likelihood of Recommending this Training to Others:
- Very Likely
- Likely
- Neutral
- Unlikely
- Very Unlikely
- 8. Did the training session encourage you to learn more about LED technology?
- Yes
  - No
- 9. Overall Training Experience:
- Excellent
- ( Good
- Fair
- Poor

10. Additional Comments or Suggestions:



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## LED BULB MANUFACTURING & SOLDERING PRACTICE TRAINING PROGRAM

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## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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Very Effective

Effective Somewhat Effective Ineffective 6. Interaction with Instructor: Excellent ✓ Good Fair Poor 7. Likelihood of Recommending this Training to Others: Very Likely Likely Neutral Unlikely Very Unlikely 8. Did the training session encourage you to learn more about LED technology? Yes No 9. Overall Training Experience: Excellent

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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY



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Affiliated to APJ Abdul Kalam Technological University & Approved by AICTE, New Delhi www.sngcet.ac.in
Email-info@sngcet.ac.in

# DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Five days Online Program

on

MASTERING HYBRID VEHICLE TECHNOLOGY :A COMPREHENSIVE ONLINE PROGRAM

Participants- Mechanical Students

From 10/08/2020 to 14/08/2020

Platform : google meet

: 09.00 am to 04.30 pm

Staff Coordinator

(7)

Mr. Vaishakh M Nayanar Assistant Professor Department of EEE

Dr. LEENA A. V.
PRINCIPAL

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ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

Student Coordinator

Ms. Vishal K S5- EEE Department of EEE



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#### DEPARTMENTOFELECTRICAL AND ELECTRONICS ENGINEERING

#### **5 DAYS WORKSHOP ON**

## MASTERING HYBRID VEHICLE TECHNOLOGY: A COMPREHENSIVE ONLINE PROGRAM 10<sup>TH</sup> AUGUEST TO 14<sup>TH</sup> AUGUEST, 2020

	DAY	1	
DATE	TIME		
	9.00 AM -9.15 AM	Introduction by coordinator Mr. Vaishakh M Nayanar AP, EEE, SNGCET	
	9.15 AM - 9.30AM	Departmental address by  Mr. Raveendran K  AP, EEE, SNGCET	
10-08-2020	09:30AM-12:00PM	Introduction to Hybrid vehicles  Mr. Vaishakh M Nayanar,  AP, EEE, SNGCET	
	02:30PM-4:30PM	Introduction to Hybrid power train Mr.Abhilash Krishnan T K, AP, EEE, SNGCET	
	DA	Y2	
	09:30 AM-12:30 PM	Mr. Vaishakh M Nayanar AP, EEE, SNGCET	
11-08-2020	01:30PM-4:30PM	Transmission systems in Hybrid Vehicles Mr. Vaishakh M Nayanar AP, EEE, SNGCET	
	DA	Y3	
12-08-2020	09:30 AM-12:30 PM	Hybrid vehicle performance and efficiencies  Mr. Vaishakh M Nayanar,  AP, EEE, SNGCET	

	01:30PM-4:30PM	Service of hybrid vehicles Mr. Vaishakh M Nayanar, AP, EEE, SNGCET		
	n.			
	DA	AY 4		
	09:30 AM-12:30 PM	Design consideration of Hybrid Vehicles Mr. Vaishakh M Nayanar,		
		AP, EEE, SNGCET		
13-08-2020	01:30PM-4:30PM	Demonstration of working Hybrid Vehicles. Mr. Vaishakh M Nayanar,		
		AP, EEE, SNGCET		
	DA	AY 5		
		Hybrid vehicle Simulation Process		
	09:30 AM-12:30 PM	Mr. Manu C		
		AP, EEE, SNGCET		
	01:30PM-3:00PM	Test drive practice Mr. Manu C		
14-08-2020	01.501 W-5.001 W	AP, EEE, SNGCET		
		Feedback session From students		
	3.00 PM-4.30 PM	Certificate distribution ceremony Mr. Raveendran K HoD		
		Dept. of EEE, SNGCET		

New

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#### **SYLLABUS**

#### Day 1: Introduction to Hybrid Vehicles

#### Morning Session:

- Overview of Hybrid Vehicles Definition
- > types of hybrid vehicles (series, parallel, series-parallel)
- Advantages and challenges of hybrid technology Hybrid Vehicle
- Architecture Components of a hybrid vehicle (electric motor, internal combustion engine, battery, transmission, etc.)
- ➤ How hybrid systems work: power flow, regenerative braking, start-stop systems

#### Afternoon Session:

- > Hybrid Powertrains
- Comparison of hybrid powertrain architectures
- ➤ Role of the internal combustion engine and electric motor in hybrid propulsion Hybrid Vehicle Control Systems
- Control strategies for optimizing performance and efficiency Introduction to regenerative braking and energy management systems.

#### Day 2: Hybrid Vehicle Technologies

#### Morning Session:

- Battery Technologies for Hybrid Vehicles
- > Types of batteries used in hybrid vehicles (NiMH, lithium-ion, etc.)
- Battery management systems and thermal management
- Electric Motors and Generators Types of electric motors used in hybrid vehicles (AC induction, permanent magnet, etc.)
- Role of generators in hybrid systems.

#### Afternoon Session:

- Transmission Systems
- > Types of transmissions used in hybrid vehicles (CVT, dual-clutch, etc.)
- Power-split and planetary gear systems
- Energy Storage and Management Charging infrastructure for hybrid vehicles
- Energy storage considerations and optimization techniques

#### Day 3: Hybrid Vehicle Performance and Efficiency

#### Morning Session:

- > Performance Characteristics of Hybrid Vehicles Acceleration
- > top speed, and towing capacity
- > Impact of hybrid technology on vehicle dynamics Fuel Economy and Emissions
- > Factors affecting fuel efficiency in hybrid vehicles Emissions reduction strategies and regulatory compliance

#### Afternoon Session:

- Maintenance and Service of Hybrid Vehicles Routine maintenance procedures
- Safety considerations for working with high-voltage systems
- Hybrid Vehicle Diagnostics Common issues and troubleshooting techniques
- > Introduction to diagnostic tools and software

#### Day4: Integration of Hybrid Technology

#### Morning Session:

- Hybrid Vehicle Design Considerations
- > Vehicle packaging and integration of hybrid components
- > Designing for optimal weight distribution and aerodynamics
- Vehicle Electrification Trends
- Market trends and future developments in hybrid and electric vehicles
- > Impact of electrification on automotive industry

#### Afternoon Session:

- Case Studies and Practical Examples
- > Review of successful hybrid vehicle designs
- Analysis of real-world performance and efficiency data

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#### Day 5: Hands-On Workshop and Applications

#### Morning Session:

- ➤ Hybrid Vehicle Simulation Exercises
- Using simulation software to model hybrid vehicle performance
- Analyzing different driving scenarios and their impact on efficiency
- > Hybrid Vehicle Component Demonstration
- > Hands-on demonstration of hybrid vehicle components
- > Safety protocols and procedures for working with hybrid systems

#### Afternoon Session:

- > Hybrid Vehicle Test Drive
- > Opportunity for participants to experience driving a hybrid vehicle
- Instructor-led discussion on driving techniques for maximizing efficiency

#### **Q&A** and Conclusion

Review of key concepts covered during the program

Opportunity for participants to ask questions and provide feedback

This syllabus provides a comprehensive overview of hybrid vehicle technology, covering theoretical concepts, practical applications, and hands-on experience over the course of five days.

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## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### MASTERING HYBRID VEHICLE TECHNOLOGY-A COMPREHENSIVE ONLINE PROGRAM

#### **Registration Form**

ate:10/08/2020 to 14/08/2020		Venue: Control System L		
Sl.No	Name of Students	Semester	Branch	
1	SNC18ME001-ABHIRAM M	S7	ME	
2	SNC18ME002-ABHIRAM S	S7	ME	
3	SNC18ME005-AFNAN ABDUL NASAR	S7	ME	
4	SNC18ME006-AKASH M	S7	ME	
5	SNC18ME009-ANANDU P	S7	ME	
6	SNC18ME010-ARJUN P. K	S7	ME	
7	SNC18ME011-ARJUN T.P	S7	ME	
8	SNC18ME012-ASWIN O	S7	ME	
9	SNC18ME015-JUNAID AHAMED K V	S7	ME	
10	SNC18ME017-MOHAMMED YUNUS	S7	ME	
11	SNC18ME021-NIKHIL KRISHNA MV	S7	ME	
12	SNC18ME022-NIVED . K.	S7	ME	
13	SNC18ME025-RAHUL RAVI P M	S7	ME	
14	SNC18ME026-REJIL MANOHARAN	S7	ME	



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### Mastering Hybrid Vehicle Technology: A Comprehensive Online Program

#### ATTENDANCE SHEET

Date:10/0	8/2020 to 14/08/2020	Venue: Control System Lab				
				ATTENDANCE	2	
Sl.No	Name of Students	10-08-2020	11-08-2020	12-08-2020	13-08-2020	14-08-2020
1	SNC18ME001-ABHIRAM M	*	X	X	X	X
2	SNC18ME002-ABHIRAM S	X	×	X	X	X
3	SNC18ME005-AFNAN ABDUL NASAR	X	×	X	X	X
4	SNC18ME006-AKASH M	X	×	X	<b>X</b>	X
5	SNC18ME009-ANANDU P	×	X	X	X	X
6	SNC18ME010-ARJUN P. K	X	X	X	X	X
7	SNC18ME011-ARJUN T.P	X	X	X	X	X
8	SNC18ME012-ASWIN O	X	X	X	X	X
9	SNC18ME015-JUNAID AHAMED K V	×	X	X	X	X
10	SNC18ME017-MOHAMMED YUNUS	×	N	X	X	X
11	SNC18ME021-NIKHIL KRISHNA MV	X	X	X	X	X
12	SNC18ME022-NIVED . K.	X	X	X	X	X
13	SNC18ME025-RAHUL RAVI P M	X	X	X	X	X
14	SNC18ME026-REJIL MANOHARAN	*	*	×	X	X



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Mastering Hybrid Vehicle Technology: A Comprehensive Online Program

Introduction

Hybrid vehicles represent a pivotal advancement in automotive technology, blending traditional internal combustion engines with electric propulsion systems. This innovative synergy addresses the growing concerns of environmental sustainability, fuel efficiency, and reduced emissions. In this introductory session, we will delve into the fundamental concepts of hybrid vehicles, exploring their definition, classification, and the underlying principles driving their adoption world wide. A hybrid vehicle is a transportation mode that integrates two or more distinct power sources to propel the vehicle forward. Typically, this includes an internal combustion engine (ICE) fueled by gasoline or diesel, alongside an electric motor powered by rechargeable batteries. This dynamic combination allows hybrid vehicles to optimize fuel efficiency, reduce emissions, and enhance overall performance compared to conventional vehicles solely reliant on ICE.

Classification of Hybrid Vehicles:

Hybrid vehicles come in various configurations, each offering unique benefits and operational characteristics.

The primary classifications include:

 Series Hybrid: In this configuration, the electric motor is solely responsible for propelling the vehicle, with the ICE acting as a generator to recharge the battery pack. Parallel Hybrid: Here, both the ICE and electric motor can independently power the vehicle, providing flexibility in utilizing either or both power sources depending on driving conditions.

 Series-Parallel Hybrid: Combining elements of both series and parallel configurations, this hybrid type offers a balance between efficiency and performance by seamlessly switching between power modes as needed.

#### **Advantages of Hybrid Vehicles:**

The adoption of hybrid technology brings forth a myriad of advantages, including: Fuel Efficiency: By harnessing the regenerative braking capabilities and electric propulsion, hybrid vehicles achieve significantly higher fuel efficiency ratings compared to traditional ICE vehicles. Emissions Reduction: The integration of electric propulsion systems results in lower greenhouse gas emissions and pollutants, contributing to cleaner air and mitigating environmental impact. Enhanced Performance: Hybrid vehicles often exhibit improved torque delivery, smoother acceleration, and reduced engine strain, translating to a more refined driving experience. Regenerative Braking: Through regenerative braking, kinetic energy that would otherwise be lost during deceleration is captured and stored in the battery, further enhancing efficiency. As we embark on this journey to explore the intricacies of hybrid vehicles, we aim to unravel the underlying technologies, design considerations, and real-world applications that continue to revolutionize the automotive landscape. Together, we will navigate through the complexities of hybrid propulsion, unveiling the sustainable future of transportation that lies ahead.



## SREE NARAYANA GURU COLLEGE of Engineering & Technology



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**ESTD 2003** 

Promoted by: Sree Bhakthi Samvardhini Yogam, Kannur Affiliated to APJ Abdul Kalam Technological University (KTU) & Recognised by AICTE, New Delhi

### CERTIFICATE OF PARTICIPATION

This certificate is presented to

ABHIRAM S

of

SNGCET- PAYYANUR .

for participating 5 days program on

MASTERING HYBRID VEHICLE TECHNOLOGY-A COMPREHENSIVE ONLINE PROGRAM

dated 10-08-2020 to 14-08-2020

Organized by

Department of Electrical & Electronics Engineering

COORDINATOR

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
NGINEERING & TECHNOLOGY, PAYYANUR

HOD (EEE)



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## Mastering Hybrid Vehicle Technology: A Comprehensive Online Program FEEDBACK

No	Vame	Email ID	Feedback Questions	Ratings
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- 1			How would you rate the trainer's communication and	
			presentation skills?	Good
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			Did you receive enough opportunity for questions and	
			clarification during the session?	Excellen
1 4	1 ABHIRAM M	abbhi123@gmail.com	Did this class meet your expectation?	Excellen
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		8	satisfactory?	Good
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING AND TECHNOLOGY

(Promoted by Sree Bhakthi Samvardhini Yogam Talap Kannur) Chalakode P O, Payyanur Kannur-670307

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING PRESERTS

WORKSHOPON

# INDUSTRIAL AUTOMATION NINTRODUCTION TO IOT

By

MR.AJITH.P

INSTUCTOR DEPT OF FLECTRICAL AND FLECTRONIC ENGINEERING GCEK, KANNUR

27/12/2019 to 31/12/2019

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

**VENUE: SOFTWARE LAB** 



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### 5 Days Workshop on INDUSTRIAL AUTOMATION AND INTRODUCTION TO IoT

27th to 31th December, 2019

		DAY 1
Date	Time	
	09:00 AM-09:15 AM	Introduction by Coordinator
		Mr. Abhilash Krishnan T K,
		Assistant Professor
		Dept. of EEE, SNGCET
	09:15AM -09:30 AM	Departmental address by
		Mr. Raveendran K
27-12-2019		HoD
		Dept. of EEE, SNGCET
		Introduction to Industrial Automation
	09:30AM-12:00PM	Me Aiith D
		Mr. Ajith P. Instructor
		Dept. of EEE, GCEK
		Case Studies Showering real would application
		Case Studies Showcasing real world application
	02:30PM-4:30PM	Mr. Ajith P.
		Instructor
		Dept. of EEE, GCEK

	<del></del>	DAY 2
28-12-2019	09:00AM-12:30 PM	Fundamentals of control systems  Mr. Ajith P. Instructor Dept. of EEE, GCEK
	01:30 PM-4:30 PM	Introduction to PID systems  Mr. Ajith P. Instructor Dept. of EEE, GCEK
		DAY 3
29-12-2019	09:00 AM-12:30 PM	Introduction to PLCs  Mr. Ajith P. Instructor  Dept. of EEE, GCEK
	01:30 PM-4:00 PM	Hands-on exercises on PLC programming and simulation  Mr. Ajith P.  Instructor  Dept. of EEE, GCEK

		DAY 4
30-12-2019	09:00 AM-12:30 AM	Introduction to HMI and SCADA systems  Mr. Ajith P.  Instructor Dept. of EEE, GCEK
	01:30PM-4:30PM	Hands-on session on HMI development and SCADA  configuration  Mr. Ajith P.  Instructor Dept. of EEE, GCEK
		DAY 5
31-12-2019	09:00 AM-12:30 PM	Introduction to Internet of Things (IoT) and Integration with  Industrial Automation  Mr. Ajith P.  Instructor Dept. of EEE, GCEK
	01:30PM-3:45PM	Challenges of integrating industrial automation with IoT & case studies  Mr. Ajith P. Instructor Dept. of EEE, GCEK
	3.45 PM -4.30 PM	Feedback session From students
		Dr. LEENA A. V.  PRINCIPAL  SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANU KANNUR



#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### FIVE DAY WORKSHOP ON INDUSTRIAL AUTOMATION AND INTRODUCTION TO <u>IOT</u>

### Introduction

Industrial automation and the Internet of Things (IoT) have revolutionized the way industries operate, enhancing efficiency, productivity, and safety. To provide participants with comprehensive insights into these transformative technologies, we are delighted to introduce a five-day workshop on Industrial Automation and Introduction to IoT.

#### **Workshop Objectives:**

<u>Comprehensive Understanding:</u> Participants will gain a thorough understanding of industrial automation principles, technologies, and their applications across various industries.

<u>Hands-On Experience</u>: Through practical sessions and demonstrations, participants will acquire hands-on experience with industrial automation systems, including Programmable Logic Controllers (PLCs), Human-Machine Interface (HMI), and Supervisory Control and Data Acquisition (SCADA) systems.

<u>Introduction to IoT:</u> The workshop will provide an introduction to the Internet of Things (IoT) and its integration with industrial automation, exploring IoT architecture, applications, and benefits.

<u>Real-World Case Studies:</u> Participants will examine real-world case studies and examples to understand the practical implementation of industrial automation and IoT in different industrial settings.

<u>Future Trends and Opportunities:</u> The workshop will conclude with discussions on emerging trends, challenges, and career opportunities in the fields of industrial automation and IoT.

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

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### **SYLLABUS**

### **Day 1: Introduction to Industrial Automation**

### Morning Session:

- > Definition and significance of industrial automation
- > Evolution of industrial automation
- Components of an industrial automation system

#### Afternoon Session:

- Advantages and challenges of industrial automation
- Case studies showcasing real-world applications

### Day 2: Fundamentals of Control Systems

### Morning Session:

- Basic concepts of control systems
- > Types of control systems (open loop, closed loop)
- Sensors and actuators in control systems

#### Afternoon Session:

- > Feedback mechanisms
- ➤ Introduction to PID control and its applications

### Day 3: Programmable Logic Controllers (PLCs)

#### Morning Session:

- > Introduction to PLCs
- Architecture and components of PLCs
- Programming languages used in PLCs (Ladder Logic, Function Block Diagram, etc.)

### Afternoon Session:

- > PLC communication protocols
- ➤ Hands-on exercises on PLC programming and simulation

### Day 4: Human-Machine Interface (HMI) and SCADA Systems

### Morning Session:

- Introduction to HMI and SCADA systems
- > Role of HMI and SCADA in industrial automation
- Design principles for HMI development

#### Afternoon Session:

- SCADA architecture and components
- ➤ Hands-on session on HMI development and SCADA configuration

### Day 5: Introduction to Internet of Things (IoT) and Integration with Industrial Automation

### Morning Session:

- Definition and characteristics of IoT
- > Applications of IoT in industrial settings
- > IoT architecture and components

### Afternoon Session:

- Benefits and challenges of integrating industrial automation with IoT
- Case studies and demonstrations showcasing IoT integration in industrial automation systems

### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

#### FIVE DAY WORKSHOP ON INDUSTRIAL AUTOMATION AND INTRODUCTION TO 10T

### **Registration Form**

ate: 27/12/2019 to 31/12/2019		Venue: Software Lab	
Sl.No	Name of Students	Semester	Branch
1	SNC15EE011 - SANJAY GANGAN K	. S7	EEE
2	SNC16EE001 -AJAY P	S7	EEE
3	SNC16EE002 -DEVIKA SATHISH	S7	EEE
4	SNC16EE003 -KIRAN RAJI VIJAYAN	S7	EEE
5	SNC16EE005 -MUHAMMED NAZEEM M	S7	EEE
6	SNC16EE007 -SHINITH K.V	S7	EEE
7	SNC16EE008 - SIDHARTH PT	S7	EEE
8	SNC16EE009 -VAISHNAV P	S7	EEE
9	SNC17EE001-ANUSREE PRAKASH	S5	EEE
10	SNC17EE002 -GAGANA V	S5	EEE
11	SNC17EE003 - GREESHMA P	S5	EEE
12	SNC17EE004 -MANASA K	S5	EEE
13	SNC17EE005 - MEGHARAJ C H	S5	EEE
14	SNC17EE006 -MUHAMMAD NABEEL	S5	EEE
15	SNC17EE007 -VAISHAKH M.M	S5	EEE
16	SNC17EE008 -VIVEK VALSAN	S5	EEE
19	SNC17EE009 - YADUKRISHNAN V V	S5	EEE

#### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING FIVE DAY WORKSHOP ON INDUSTRIAL AUTOMATION AND INTRODUCTION TO IoT ATTENDANCE SHEET Date: 27/12/2019 to 31/12/2019 Venue: Software Lab ATTENDANCE SI.No Name of Students 27-12-2019 28-12-2019 29-12-2019 30-12-2019 31-12-2019 SNC15EE011 - SANJAY GANGAN K School SNC16EE001 -AJAY P Jane dre Bul Donb. Demles SNC16EE002 -DEVIKA SATHISH 3 SNC16EE003 -KIRAN RAJI VIJAYAN NI. SNC16EE005 -MUHAMMED NAZEEM M Sother SNC16EE007 -SHINITH K.V Finton Johns sithur SNC16EE008 - SIDHARTH PT done Alron ano. Moa Hoose SNC16EE009 -VAISHNAV P Janes y Vans Deryn. (Trans omy. Jule SNC17EE001-ANUSREE PRAKASH garger SNC17EE002 -GAGANA V gange garge 10 Clarge SNC17EE003 - GREESHMA P Greeston 11 Greenson Convertina. Greeston Greest SNC17EE004 -MANASA K asses. 12 Maris 0000 Cooger mar. SNC17EE005 -MEGHARAJ CH mary wight 13 May SNC17EE006 -MUHAMMAD NABEEL 1 beaul 14 Marbal Nobal. SNC17EE007 -VAISHAKH M.M. 15 SNC17EE008 -VIVEK VALSAN 16

SNC17EE009 - YADUKRISHNAN V V

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PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### Report On Five Day Workshop On Industrial Automation And Introduction To Iot

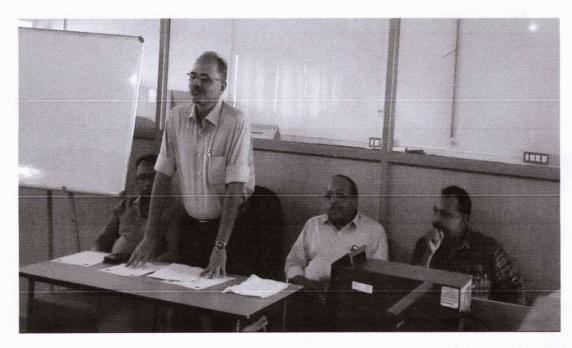
The Department of Electrical and Electronics Engineering conducted Five-day workshop on industrial automation and introduction to IoT for students of Electrical and Electronics Engineering from 27/12/2019 to 31/12/2019. A Total of 17 students participated in the training session.

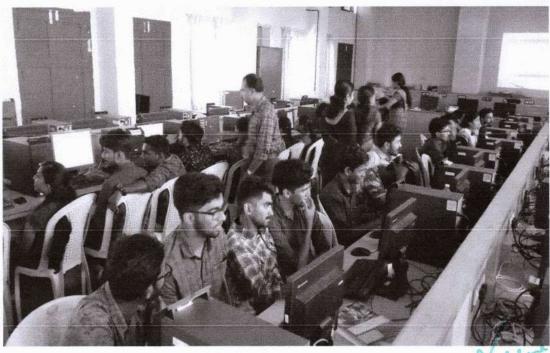
The event was inaugurated by Dr. V K Janardhanan, Principal, SNGCET. Welcome address was delivered by Prof. Raveeendran K.(HoD, EEE). Dr. Leena A.V. (Dean Academics) and Mr. Abhilash Krishnan T.K. (AP, EEE) delivered felicitation speech and, student coordinator Mr. Shinith K.V. delivered vote of thanks. The inaugural session concluded at 10:00 a.m., after which the training session started. The session was conducted by Mr. Ajith P. (Instructor, Department of Electrical and Electronics Engineering, GCEK, Kannur)

The workshop aimed to provide students with a comprehensive understanding of industrial automation principles, technologies, and their integration with the Internet of Things (IoT). The workshop included theoretical sessions, hands-on activities, and discussions on real-world applications.

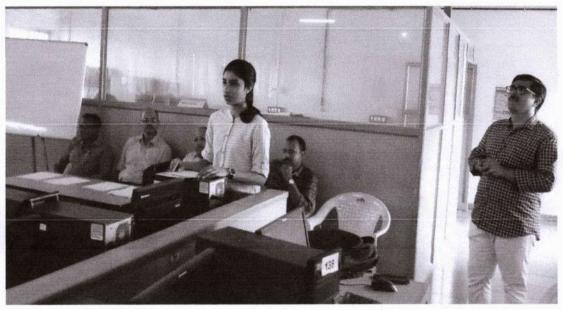
On the first day, students were introduced to the concept and significance of industrial automation. They learned about the evolution of industrial automation, its components, advantages, and challenges. The second day focused on the fundamentals of control systems. Students learned about different types of control systems, sensors, actuators, and feedback mechanisms. The concept of PID control was introduced, followed by practical exercises to reinforce the theoretical knowledge. Day three was dedicated to Programmable Logic Controllers (PLCs). Participants received an overview of PLCs, their architecture, programming languages, and communication protocols. The fourth day covered Human-Machine Interface (HMI) and Supervisory Control and Data Acquisition (SCADA) systems. Participants learned about the role of HMI and SCADA in industrial automation, design principles, and configuration methods. The final day focused on IoT and its integration with industrial automation. Students learned about IoT architecture, applications, and the benefits of integration with industrial systems.

The five-day workshop provided students with a comprehensive understanding of industrial automation and IoT. Through a combination of theoretical sessions and hands-on activities, students gained practical knowledge and skills that can be applied in their respective industries. The workshop received positive feedback from students, who expressed appreciation for the interactive sessions and valuable insights provided by the instructors.











## SREE NARAYANA GURU COLLEGE of ENGINEERING & TECHNOLOGY



Promoted by: Sree Bhakthi Samvardhini Yogam, Kannur Affiliated to APJ Abdul Kalam Technological University (KTU) & Recognised by AICTE, New Delhi

### CERTIFICATE OF PARTICIPATION

This certificate is presented to

YADUKRISHNAN V V

of

SNGCET- PAYYANUR

for participating 5 days program on

### INDUSTRIAL AUTOMATION AND INTRODUCTION TO IOT

dated 27/12/2019 to 31/12/2019

Organized by

Department of Electrical & Electronics Engineering

COORDINATOR

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

HOD (FEE)



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### WORKSHOP ON INDUSTRIAL AUTOMATION AND INTRODUCTION TO IOT

### FEEDBACK FORM

Thank you for participating in our 5-day Workshop On Industrial Automation And Introduction To Iot. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

### Participant Information:

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- 2. Relevance of Training Content:
- Highly Relevant
- Relevant
- Somewhat Relevant
- Not Relevant
- 3. Clarity of Instruction:
- ( Very Clear
- Clear
- Somewhat Clear
- Unclear
- 4. Quality of Training Materials:
- Excellent
- Good
- Fair
- Poor
- 5. Effectiveness of Hands-on Exercises:
- Very Effective

Effective Somewhat Effective Ineffective 6. Interaction with Instructor: Excellent Good Fair Poor 7. Likelihood of Recommending this Training to Others: Very Likely Likely Neutral Unlikely Very Unlikely 8. Did the training session encourage you to learn more about LED technology? Yes No 9. Overall Training Experience: Excellent Good

10. Additional Comments or Suggestions:

Fair

Poor

Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.





### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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  Somewhat Effective
  Ineffective
- 6. Interaction with Instructor:
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- Likely
- Neutral
- Unlikely
- · Very Unlikely
- 8. Did the training session encourage you to learn more about LED technology?
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- 9. Overall Training Experience:
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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY



Payyanur, Kannur, Kerala, Pin-670307
Promoted by Sree Bhakthi Samvardhini Yogam, Kannur
Affiliated to APJ Abdul Kalam Technological University & Approved by AICTE, New Delhi

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

# CRAFTING WITH CAD- A 5 DAYS WORKSHOP SERIES

### Our Resource Person



Mr. Jacob Thomas HoD Department of Mechanical Engineering Govt. Poly Technic, Periya, Kasaragod

Date: 26/12/2018 to 30/12/2018

**Venue: Software Lab** 

Time: 09.00AM to 04.30 PM

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

### Staff Coordinator

Mr. Abhilash Krishnan TK Assistant Professor Department of EEE

### **Student Coordinator**

Mr. Vishnu Unnikrishnan S7- EEE Department of EEE



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### **CRAFTING WITH CAD: A 5 DAYS WORKSHOP SERIES**

26th December to 31st December, 2021

DAY1		
Date	Time	
	09:00 AM-09:15 AM	Introduction by Coordinator  Ms. Prabha Chandran  Assistant Professor  Dept. of EEE, SNGCET
	09:15AM -09:30 AM	Departmental address by  Mr. Raveendran K  HoD  Dept.ofEEE,SNGCET
26-12-2018	09:30AM-12:00PM	Introduction to CAD  Mr. Jacob Thomas  H od  Department of Mechanical Engineering Govt.Polytechnic College, Periya
	02:30PM-4:30PM	Introduction to Drawings Mr. Jacob Thomas H od
2		Department of Mechanical Engineering Govt.Polytechnic College, Periya

	93.	DAY2
27-12-2018	09:00 AM-12:30 PM	Drawing Commands of CAD  Mr. Jacob Thomas  H od  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
	01:30PM-4:30PM	Modifying Commands of CAD  Mr. Jacob Thomas  H od  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
		DAY3
28-12-2018	09:00 AM-12:30 PM	Explanation of 2D drawings for the familiarization of Drawing and Modifying  Commands  Mr. Jacob Thomas  H od  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
	01:30 PM-4:30 PM	Practical Session :2D drawings for the familiarization of Drawing and Modifying Commands  Mr. Jacob Thomas  H od  Department of Mechanical Engineering  Govt.Polytechnic College, Periya

		DAY4
29-12-2018	09:30AM-12:30AM	Introduction to toolbar and explanation of properties of drawing  Mr.Jacob Thomas  Hod  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
	01:30PM-4:30PM	Practical Session  Mr.Jacob Thomas  Hod  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
		DAY5
30-12-2018	09:00AM-12:30PM	Plotting and presentation of hard copies  Mr.Jacob Thomas  Hod  Department of Mechanical Engineering  Govt.Polytechnic College, Periya
	01:30PM-3:00PM	Practical Session  Mr.Jacob Thomas  Hod  Department of Mechanical Engineering Govt.Polytechnic College, Periya
	3.00 PM -4.30 PM	Feedback session From students  Certificate distribution ceremony Mr. Raveendran K HoD Dept. of EEE, SNGCET



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING SYLLABUS

"Crafting with CAD: A 5-Day Workshop Series"

Day	9.00 AM to 12.00PM	1.00 PM to 4.00 PM
Day1	<ul> <li>Introduction to Computer hardware and peripherals</li> <li>Input output devices</li> <li>Windows operating system</li> <li>Auto CAD application software in the platform of Windows.</li> <li>Control bar, pull down menu, status bar, workspace,</li> <li>Snap, Grid, Ortho mode O snap, O track, Line weight, dynamic UCS, Model space and paper space</li> <li>WCS and UCS</li> <li>Coordinate system and References</li> <li>Absolute system of reference</li> <li>Incremental system of reference</li> <li>Polar system of reference</li> <li>Limits and Units</li> </ul>	<ul> <li>Practical session</li> <li>Simple 2D drawings</li> <li>Based on :WCS and UCS</li> <li>Coordinate system and References</li> <li>Absolute system of reference</li> <li>Incremental system of reference</li> <li>Polar system of reference</li> <li>Limits and Units</li> </ul>
Day2	Drawing commands Line, Construction line Multi lines, Poly lines Rectangle, Polygons Arc, Circle, Splines Ellipse, Ellipse arc Make block and Insert block Point, Hatch, Gradient, Region Multiline text. Table.	Modifying Commands Erase, Copy Mirror, Offset Array- Circular and Rectangular Move, Rotate, Scale Stretch, Trim, Extend Break, Join Fillet and Chamfer Blend curves and Explode
Day 3	Practical session 2D drawings for the familiarization of Drawing and Modifying Commands	Practical session 2D drawings for the familiarization of Drawing and Modifying Commands
Day4	Tool bars	Practical Session

	Tool pallets Design center External reference files Properties of drawings And Editing	2D drawings of Electrical circuits to familiarize the easiest and fastest methods for drawing requirements.
Day5	Formats- layer, line type, Line weight, Text style, Dimension style, Point style, Multi leader style, Multi line style, Table style.  Dimensioning Plotting and presentation of hard copies	Practical Session Drawing various type of Electrical circuits and Printing or Plotting.

### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

### DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### **CRAFTING WITH CAD - A 5 DAYS WORKSHOP**

### **Registration Form**

Date: 26/12/2018 to 30/12/2018 Venue: Software Lab

Sl.No	Name of Students	Semester	Branch
1	SNC15EE001 PPVAJMAL	S7	EEE
2	SNC15EE002 AKSHAY M NAMBIAR	S7	EEE
3	SNC15EE003 ANAGHA ASHOKAN	S7	EEE
4	SNC15EE004 ANSAB K P	S7	EEE
5	SNC15EE006 ASWINRAJ. T	S7	EEE
6	SNC15EE007 MUHAMMED IRSHAD	S7	EEE
7	SNC15EE008 NIDHIN NANDAKUMAR	S7	EEE
8	SNC16EE004 LAJEESH KUMAR K P	S5	EEE
9	SNC16EE001 AJAY P	S5	EEE
10	SNC16EE002 DEVIKA SATHISH	S5	EEE
11	SNC16EE003 KIRAN RAJI VIJAYAN	S5	EEE

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	DEPARTMENT OF		AND ELECTRO	ELECTRICAL AND ELECTRONICS ENGINEERING	RING	
	CRAF		TING WITH CAD - A 5 DAYS WORKSHOP	RKSHOP		
		ATTEND,	ATTENDANCE SHEET			
	Date: 26/12/2018 to 30/13/2018	3		Venue: Software Lab	ıb	
	Date: 20/12/2010 to 20/12/2010			ATTENDANCE		
SI.No	Name of Students	26-12-2018	27-12-2018	28-12-2018	29-12-2018	30-12-2018
	SNC15EE001P P V AJMAL	Ch. 8	Const	and and	Gra Charle	Bus
2	SNC15EE002AKSHAY M NAMBIAR	Malor	Alease	Malley	Allabus	Heghon
3	SNC15EE003ANAGHAASHOKAN	Amenga -	Maga	Denvige	"Acres and	Genest.
4	SNC15EE004ANSAB K P	1	CAN	200	(41s)	CAR
S	SNC15EE006ASWINRAJ. T	Aug C	· Romers	fruers	Emuse	. house
9	SNC15EE007MUHAMMED IRSHAD	= Books	and the	Marke	C. Low My	Marke
7	SNC15EE008NIDHIN NANDAKUMAR	- sachhuman	Mandan	Menthology	Mann	Maken
8	SNC16EE004LAJEESH KUMAR K P	- Secretary	The state of the s		The state of the s	The state of the s
6	SNC16EE001AJAY P	Charles Andrews	the same	and and	The state of the s	A-4
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Dr. LEENA A. V.
PRINCIPAL
SREE NARYANA GURU COLLEGE OF
SHOW STECHNOON, PAYYANUR
KANNUR



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### REPORT ON CRAFTING WITH CAD: A 5-DAY WORKSHOP SERIES

The Department of Electrical and Electronics Engineering conducted Fivedaysworkshop on "Crafting with CAD: A 5-Day Workshop Series" for students of Electrical and Electronics Engineering from 26/12/2018 to 30/12/2018. A Total of 11 students participated in the training session. The students gained knowledge on recent trends in hybrid vehicle and the increasing demand in this technology

The event was inaugurated by Prof. Raveendran K, (HoD, EEE). Welcome addresse was delivered by Mr. Abhilash Krishnan (AP, EEE). Dr. Leena A V (Dean Academics delivered felicitation speech and Mr. Vishnu Unnikrishnan, student coordinator delivered vote of thanks. The inaugural session concluded at 9.30 a.m., after which the training session started.

The objective of the 5-days Crafting with CAD: A 5-Day Workshop SeriesThe objective of the Crafting with CAD workshop is to equip participants with the knowledge, skills, and practical experience necessary to proficiently utilize Computer-Aided Design (CAD) software in their respective fields. Through handson training, interactive sessions, and practical exercises, the workshop aims to achieve the following objectives: Understanding CAD Fundamentals, Developing Proficiency in 2D and 3D Modelling, Exploring Industry Applications, Enhancing Design Visualization and Communication, Optimizing Design and Production Processes Encouraging Creative Problem-Solving. Developing Proficiency in 2D and 3D ModelingExploring Industry ApplicationsEnhancing Design Visualization and Communication:Optimizing Design and Production Processes Encouraging Creative Problem-Solving



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Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR



### SREE NARAYANA GURU COLLEGE of Engineering & Technology



Promoted by: Sree Bhakthi Samvardhini Yogam, Kannur Affiliated to APJ Abdul Kalam Technological University (KTU) & Recognised by AICTE, New Delhi

### CERTIFICATE OF PARTICIPATION

This certificate is presented to

AJAY P

of

SNGCET- PAYYANUR

for participating 5 days program on

CRAFTING WITH CAD

dated 26/12/2018 to 30/12/2018

Organized by

Department of Electrical & Electronics Engineering

COORDINATOR

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNI IR

HOD (EEE)



### SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

"Crafting with CAD: A 5-Day Workshop Series"

### FEEDBACK FORM

Thank you for participating in our 5-day "Crafting with CAD: A 5-Day Workshop Series" session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

### **Participant Information:**

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied
- 2. Relevance of Training Content:
- Highly Relevant
- Relevant
- · Somewhat Relevant
- Not Relevant
- 3. Clarity of Instruction:
- Very Clear
- Clear
- · Somewhat Clear
- Unclear
- 4. Quality of Training Materials:

Excellent Good Fair Poor 5. Effectiveness of Hands-on Exercises: Very Effective Effective Somewhat Effective Ineffective 6. Interaction with Instructor: Excellent Good Fair Poor 7. Likelihood of Recommending this Training to Others: Very Likely Likely Neutral Unlikely Very Unlikely 8. Did the training session encourage you to learn more about LED technology? Yes No 9. Overall Training Experience: Excellent Good

Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.

Fair

Poor



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

"Crafting with CAD: A 5-Day Workshop Series"

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Den

• Excel	lent
Good	
Fair	
• Poor	
5. Effect	tiveness of Hands-on Exercises:
Very	Effective
• Effect	tive
• Some	what Effective
• Ineffe	ective
6. Intera	action with Instructor:
• Excel	lent
Good	
• Fair	
• Poor	
7. Likeli	ihood of Recommending this Training to Others:
Very	Likely
• Likely	y ·
• Neutr	al
• Unlik	ely
• Very	Unlikely
8. Did tl	he training session encourage you to learn more about LED technology?
Yes	
• No	
9. Overa	all Training Experience:
Excel	lent
<ul> <li>Good</li> </ul>	
• Fair	
<ul> <li>Poor</li> </ul>	
	or taking the time to complete this feedback form. Your input is essential for
us to enhance	e the quality of our training programs. Please return this form before leaving.



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

"Crafting with CAD: A 5-Day Workshop Series"

#### FEEDBACK FORM

Thank you for participating in our 5-day "Crafting with CAD: A 5-Day Workshop Series" session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

#### **Participant Information:**

Training Session Evaluation:

- 1. Overall Satisfaction:
- Very Satisfied
- Satisfied
  - Neutral
  - Dissatisfied
  - Very Dissatisfied
- 2. Relevance of Training Content:
- · Highly Relevant
- Relevant
- Somewhat Relevant
- Not Relevant
- 3. Clarity of Instruction:
- Very Clear
- Clear
- Somewhat Clear
- Unclear
- 4. Quality of Training Materials:

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNICIP

Excellent Good Fair Poor 5. Effectiveness of Hands-on Exercises: Very Effective Effective Somewhat Effective Ineffective 6. Interaction with Instructor: Excellent Good Fair Poor 7. Likelihood of Recommending this Training to Others: Very Likely Likely Neutral Unlikely Very Unlikely 8. Did the training session encourage you to learn more about LED technology? Yes No 9. Overall Training Experience: Excellent

Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.

Good

Fair

Poor



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

"Crafting with CAD: A 5-Day Workshop Series"

#### **FEEDBACK FORM**

Thank you for participating in our 5-day "Crafting with CAD: A 5-Day Workshop Series" session. Your feedback is valuable to us as we strive to continuously improve our training programs. Please take a few moments to share your thoughts and suggestions regarding the training you received.

#### **Participant Information:**

Training Session Evaluation:

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- Very Satisfied
- Satisfied
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- Highly Relevant
  - Relevant
  - Somewhat Relevant
  - Not Relevant
- 3. Clarity of Instruction:
- Wery Clear
- Clear
- Somewhat Clear
- Unclear
- 4. Quality of Training Materials:

New

 Excellent Good Fair Poor 5. Effectiveness of Hands-on Exercises: Very Effective Effective Somewhat Effective Ineffective 6. Interaction with Instructor: Excellent Good Fair Poor 7. Likelihood of Recommending this Training to Others: Very Likely Likely Neutral Unlikely · Very Unlikely 8. Did the training session encourage you to learn more about LED technology? Yes No 9. **Overall Training Experience:** Excellent Good Fair Poor

Thank you for taking the time to complete this feedback form. Your input is essential for us to enhance the quality of our training programs. Please return this form before leaving.



## Sree Narayana Guru College of Engineering & Technology



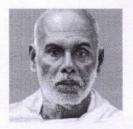
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DEPARTME		CURANICAL	ENGINEERING



# **Sree Narayana Guru College of Engineering & Technology**

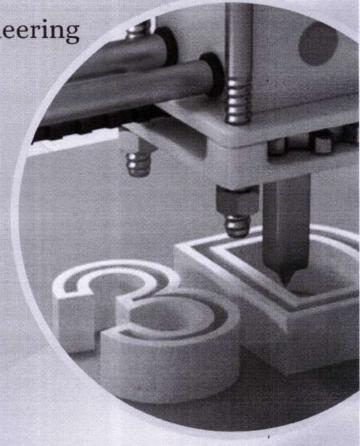
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Department of Mechanical Engineering

Organising

# 5 Days WORKSHOP 3D PRINTING



**Exclusively For Final Year Students** 

### Key Highlights

- Self Development Design
- 3D Printing Trends
- Challenges in 3D Printing
- Post Processing Operations

13-17 March 2023



9.00 AM - 5.00 PM





# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGINEERING

#### 5 Day Workshop on 3D Printing, March 13-17, 2023

	DAY 1			
Date	Time			
	9:00 AM-9:10 AM	Introduction		
		by		
		Coordinator		
		Dr. Sudhin Chandran, Dept. of ME, SNGCET		
	9:10 AM-9:15 AM	Departmental address by		
		Mr. Jacob Thomas		
		HoD, Dept. of ME, SNGCET		
13-03-2023 (Monday)	A Company	Expert talk by		
	9:15 AM-12:00 PM	Dr. Abdul Nazar K P, Associate Professor		
		Dept of Mechanical Engineering, GEC		
		Kannur		
		Title: State of the art of 3D printing application.		
		Expert talk by		
		Mr. Jacob Thomas		
		Asst. Professor		
		Dept of Mechanical Engineering, SNGCET		
		SNGCEI		
	01:00 PM-5:00 PM			
		Title: 3D Printing technology steps, 3D Printing application		
		fields, 3D Printing equipment, 3D Printing approach to build parts and assemblies.		
		V. en		

		DAY 2
14-03-2023 (Tuesday)	9:00 AM-12:30 PM	Expert talk by Dr. Abdul Nazar K P, Associate Professor Dept of Mechanical Engineering, GEC Kannur  Title: 3D Printing process steps for 3D printing an object, post- processing operations for 3D printed objects.
	01:30PM-5:00PM	Expert talk by  Mr. Jacob Thomas  Asst. Professor  Dept of Mechanical Engineering,  SNGCET  Title: 3D Printing approach to build parts and assemblies,  post-processing operations for 3D printed objects.
		DAY 3
15-03-2023 (Wednesday)	9:00 AM-12:30 PM	Expert talk by  Mr. Pradeepkumar V.  Instructor ME, GCE Kannur.  Title: 3D Printed Energy Storage Devices for Flexible and  Wearable Electronics
	01:30PM-5:00PM	Expert talk by  Dr. Solamon Joseph,  Lecturer ME, GPC Periye, Kasargod.  Title: Challenges and advantages of 3D printing.

		Day 4
	09:00 AM-12:00 PM,	Expert talk by Govardhan Kayarthaya B, Lecturer ME, GPC Periye, Kasargod.
16-03-2023 (Thursday)		Title: Technology Drivers for 3D printing, Knowledge on 3D printer software
	01:00 PM-5:00 PM	Expert talk by Dr. Solamon Joseph, Lecturer ME, GPC Periye, Kasargod.  Title: 3D Printing technology, 3D Printing process steps for 3D printing an object.
		DAY 5
17-03-2023 (Friday)	9:00 AM-12:30 PM	Expert talk by Govardhan Kayarthaya B, Lecturer ME, GPC Periye, Kasargod.  Title: post-processing operations for 3D printed objects.
	01:30 PM-5:00 PM	Expert talk by Mr. Jacob Thomas Asst. Professor Dept of Mechanical Engineering, SNGCET



cones, pyramids.

# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGINEERING

#### SYLLABUS FOR 3D PRINTING

	Professional Skills(Trade Practical)	Professional Knowledge(Trade Theory)
ŀ	1. Importance of trade training, List of tools &	All necessary guidance to be provided to the new
	Machinery used in the trade.	comers to become familiar with the working of
	2. First Aid Method and basictraining.	Industrial Training Institute system including
	3. Safe disposal of waste materials like cotton	storesprocedures.
	waste, metal chips/burrs etc.	Soft Skills, its importance and Job area after
	4. Hazard identification and avoidance.	completion of training.
	5. Safety signs for Danger, Warning, caution &	Importance of safety and general precautions
	personal safety message.	observed in the industry/shop floor.
	6. Preventive measures forelectrical accidents &	Introduction of First aid. Operation of electrical
	steps to be taken in such accidents.	mainsand electrical safety. Introduction of
	7. Use of Fire extinguishers.	PPEs. Response to emergencies e.g.; power
	8. Practice and understand precautions to be	failure, fire, and system failure.
	followed while working in fitting jobs.	Importance of housekeeping & good shop floor
	9. Demonstrate the functions of 3D printing an	d practices. Introduction to 5S concept & its
	Scanning.	application.
	10. Demonstrate the functions of 3D printing an	d Occupational Safety & Health: Health, Safety
	Scanning. Perform Computer operation:	and Environment guidelines, legislations &
	i)create new folder, ii) add subfolders,	regulations as applicable.
	create application files, iv) change appearance	е
	of windows, v) search for files,	Introduction to 3D Printing and Scanning. Basic
	vi) sort files, vii) copy files, viii) create shortcu folder, ix) create shortcut icon in desktop an	a communer introduction to communer window
	taskbar x) Move files to and from removable	I operating everem the management everem
	disk/ flash drive. xi) Install a printer from drive	( omputer hardware and cottware enecitication
	software in operating system.	
	11. Create, save and print a document, workshee	Engineering Drawing: Nomenclature
	and pdf (portable document format) files.	description and use of drawing instruments &
	12. Draw perpendicular, inclined (given angle)	various equipments used in drawing office. Their
	and parallel lines. Draw triangles with giver	I care and maintenance
	sides and angles.	
		Units of dimensioning, System of dimensioning
	13. Draw inscribed and circumscribed circles of	Method of dimensioning & common features
	triangle, pentagon andhexagon.	Methods of obtaining orthographic view. Position
	14. Draw orthographic projection of cur	of the object, selection of the views, three views
	section/ frustums of solids- prism, cylinders	of drawing. Planes and their normal projections
	COMOR MY MOMAL TO	

Orthographic projection. First angle and third

- 15. Draw 2D objects using: line, polyline, ray, polygon, circle, rectangle, arc, ellipse commands.
- Modify 2D objects using Move, Copy, Array, Insert Block, Make Block, Scale, Rotate, Hatch Commands.
- 17. Perform computer application in 2D drawing space using commands from ribbon, menu bar, toolbars and by typing in command prompt.
- Modify 2D objects using Move, Copy, Array, Insert Block, Make Block, Scale, Rotate, Hatch Commands.
- Draw 3D solid figures by Sketching features & applied features.
- 20. Handle imported geometries using Feature Works – Recognise features to native file formats.
- 21. Create a 3D transition figure
  - Using loft feature.
  - Using sweep feature.
  - Using library features.

i)Create 3D model by annotating Holes and Threads, ii) Create Centrelines, symbols and leaders, iii) Perform seamless Simulation within CAD Apply loads & boundary conditions, Material should come from part definition, contacts etc and perform base simulation.

- iv)Plot various results- Stress, Strain, Deformation, Displacement, Factor of Safety plot, Design Insight plot, probe facility, Isoclipping, Section clipping. v) Create automatic reports vi) Understand 2D simplification.
- 22. Learn Data Translation Built in translation facility to export design to DWG, DXF, ProE, IPT(Inventor), Mechanical Desktop, Unigraphics, ParaSolid, CADKEY, IGES, STEP, PAR (SolidEdge), SAT(ACIS), VDA-FS, VRML, STL, TIFF, JPG, Adobe, Rhino, IDF & HSF. (20 hrs)

angle projection. Principal of orthographic projection. Projection of solids like prism, cones, pyramids and their frustums.

Introduction to 2D User interface. Drawing of Line, polyline, ray, polygon, circle, rectangle, arc, ellipse using different options. Trim, Offset, Fillet, Chamfer, Arc and Circle under modify commands. Move, Copy, Array, Insert Block, Make Block, Scale, Rotate, Hatch Commands. Creating templates, Inserting drawings, Layers, Modify Layers. Format dimension style, creating new dimension style, Modifying styles in dimensioning. Writing text on dimension line and on leader. Edit text dimension. Knowledge of shortcut keyboard command. Customization of keyboard command. Customization of drafting settings, changing orthographic snap to isometric snap. Procedure to create viewport in layout space in zooming scale.

3D Modeling and Design Software: Introduction to 3D Modeling and Software. User interface - Menu Bar - Command manager -Feature manager – Design Tree – settings on the Default options - suggested settings - key board short cuts. Feature manager Design Tree Selection of plane Control of sketches through parameter and property manager. Featured tools in Command Manager Feature Toolbar. Extrude Boss/Base Revolve Boss/Base Swept Boss/Base Lofted Boss/Base Boundary Boss/Base Extruded cut Hole Wizard Revolved Cut Boundary Cut Fillet, chamfer, mirror Linear pattern and circular pattern Understanding part GD&T DimXpert Manager

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#### DEPARTMENT OF MECHANICAL ENGINNERING

#### Report of the Session on WORKSHOP ON 3D PRINTING

The Department of Mechanical Engineering (ME) and organized the "Workshop on 3D Printing" from March 13<sup>th</sup> to March 17<sup>th</sup> 2023, at 10 AM in Mechanical department's seminar hall. The aim of the workshop is to make students aware about concept & importance of 3D printing Technology. The workshop was also attended by the staffs of SNGCET. The session commenced with a welcoming address from the event coordinator, Dr. Sudhin Chandran, Assistant Professor of ME, expressing appreciation to participants and faculties for their whole-hearted support.

The workshop started with welcoming guest by respected Head of the Department Mr. Jacob Thomas. The workshop was divided in two sessions, in first session Dr. Abdul Nazar K P has presented and explained to students about back ground of how 3D printing technology evolved. He also explained about the various types of 3D printing technology available in market and how they differ in printing object. In the Second session, Mr. Jacob Thomas demonstrated on 3D printer which they have brought by 3D printing a small component in printer. While demonstration was going on simultaneously sir has also explained about type of raw material required for 3D printing. Sir also explained that depending upon the raw material how the product quality varies and also cost of the component.





The session focusing on 3D Printing at the workshop proved highly successful, equipping students with knowledge and practical skills for utilizing 3D printers in industrial settings. Participants thoroughly covered all fundamental aspects of 3D printing technology. Exceptionally positive feedback was received from the students regarding their learning experience during the workshop. Such initiatives play a pivotal role in preparing students for the contemporary challenges and opportunities they will encounter. Attendees departed the session with renewed inspiration and a steadfast determination to further refine their concepts, with the aim of making a positive impact on the world through their innovative endeavors. The session, featuring informative presentations and insightful discussions, undoubtedly enriched the academic atmosphere at SNGCET.

CHANGERING ATTEMPT OF PAYS



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### STUDENT LIST

S.NO	NAME	SEMESTER
1	ADARSH.P.K	S8
2	ADWAIDH BALAN	S8
3	ANURAG A	S8
4	ASWANTH.C	S8
5	ATHUL.B	S8
6	BIPIN.K	S8
7	FARHAN.C	S8
8	JASIN.P	S8
9	MOHAMMED AAFIL ISMAYIL.M.K	S8
10	MRIDUL.C	S8
11	NITHIN.A	S8
12	SANDESH K DINESH	S8
13	ARJUN SHYLESH	S6
14	ASHISH K	S6
15	ASHWIN JOHN	S6
16	ASWIN BABU M V	S6
17	MOHAMMED SHAD ABDUL SATHAR	S6
18	SOURAG K	S6
19	ARJUN SHYLESH	S6
20	ASHISH K	S6



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **DAY 1 ATTENDENCE LIST**

S.NO	NAME	SEMESTER	SIGN
1	ADARSH.P.K	S8	del
2	ADWAIDH BALAN	S8	Advisation
3	ANURAG A	S8	RAM
4	ASWANTH.C	S8	A Santific
5	ATHUL.B	S8	AIL
6	BIPIN.K	S8	Ben
7	FARHAN.C	S8	Javar
8	JASIN.P	S8	astust
9	MOHAMMED AAFIL ISMAYIL.M.K	S8	Nahamar
10	MRIDUL.C	S8	Stalled
11	NITHIN.A	S8	Neth
12	SANDESH K DINESH	S8	- Soul
13	ARJUN SHYLESH	S6	Que
14	ASHISH K	S6	Contract of the contract of th
15	ASHWIN JOHN	S6	A hum Joh
16	ASWIN BABU M V	S6	Shurk
17	MOHAMMED SHAD ABDUL SATHAR	S6	Jacob .
18	SOURAG K	S6	And The State of t
19	ARJUN SHYLESH	S6	ANT
20	ASHISH K	S6	Ashir

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#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **DAY 2 ATTENDENCE LIST**

S.NO	NAME	SEM	SIGN
1	ADARSH.P.K	S8	doth
2	ADWAIDH BALAN	S8	AdiBoday
3	ANURAG A	S8	Rapu
4	ASWANTH.C	S8	XIV
5	ATHUL.B	S8	AHL
6	BIPIN.K	S8	Bizi
7	FARHAN.C	S8	Tours
8	JASIN.P	S8	detur
9	MOHAMMED AAFIL ISMAYIL.M.K	S8	Nulamen.
10	MRIDUL.C	S8	and the
11	NITHIN.A	S8	Nitt
12	SANDESH K DINESH	S8	Com
13	ARJUN SHYLESH	S6	Au
14	ASHISH K	S6	diff
15	ASHWIN JOHN	S6	Achimob
16	ASWIN BABU M V	S6	Schunk
17	MOHAMMED SHAD ABDUL SATHAR	S6	her
18	SOURAG K	S6	2 mil
19	ARJUN SHYLESH	S6 /	A.
20	ASHISH K	S6 Xu	Achistos



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **DAY 3 ATTENDENCE LIST**

S.NO	NAME	SEM	SIGN
1	ADARSH.P.K	S8	Jah
2	ADWAIDH BALAN	S8	Adulbatos
3	ANURAG A	S8	Mary
4	ASWANTH.C	S8	Jan V
5	ATHUL.B	S8	AN
6	BIPIN.K	S8	A Bin
7	FARHAN.C	S8	Fartas
8	JASIN.P	S8	asm
9	MOHAMMED AAFIL ISMAYIL.M.K	S8	Menmady
10	MRIDUL.C	S8	english
11	NITHIN.A	S8	Nith
12	SANDESH K DINESH	S8	Same
13	ARJUN SHYLESH	S6	Aus
14	ASHISH K	S6	MA
15	ASHWIN JOHN	S6	Arhunto
16	ASWIN BABU M V	S6	Solven .
17	MOHAMMED SHAD ABDUL SATHAR	S6	Los
18	SOURAG K	S6	The state of the s
19	ARJUN SHYLESH	S6 /	Ani
20	ASHISH K	S6 Xu	Atusta



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **DAY 4 ATTENDENCE LIST**

S.NO	NAME	SEM	SIGN
1	ADARSH.P.K	S8	dutta
2	ADWAIDH BALAN	S8	Adulata
3	ANURAG A	S8	BARY
4	ASWANTH.C	S8	Juda
5	ATHUL.B	S8	Atl
6	BIPIN.K	S8	Bipi
7	FARHAN.C	S8	Farlar
8	JASIN.P	S8	ingus.
9	MOHAMMED AAFIL ISMAYIL.M.K	S8	Muhammad
10	MRIDUL.C	S8	Mary
11	NITHIN.A	S8	Nith
12	SANDESH K DINESH	S8	Jamel
13	ARJUN SHYLESH	S6	Am
14	ASHISH K	S6	A A A
15	ASHWIN JOHN	S6	Adulth
16	ASWIN BABU M V	S6	Shows .
17	MOHAMMED SHAD ABDUL SATHAR	S6	
18	SOURAG K	S6	olive
19	ARJUN SHYLESH	S6	Aser.
20	ASHISH K	S6 een	Adult

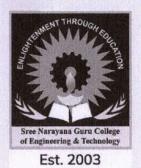


#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY WORKSHOP ON 3D PRINTING**

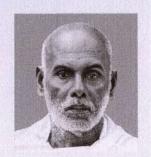
#### **DAY 5 ATTENDENCE LIST**

S.NO	NAME	SEM	SIGN
1	ADARSH.P.K	S8	dollar
2	ADWAIDH BALAN	S8	Adulada
3	ANURAG A	S8	RAN
4	ASWANTH.C	S8	Xarr
5	ATHUL.B	S8	AN
6	BIPIN.K	S8	ABPPP
7	FARHAN.C	S8	Fata
8	JASIN.P	S8	axim
9	MOHAMMED AAFIL ISMAYIL.M.K	S8	Muhammal.
10	MRIDUL.C	S8	Statul
11	NITHIN.A	S8	Nith
12	SANDESH K DINESH	S8	Soull
13	ARJUN SHYLESH	S6	Am
14	ASHISH K	S6	1646
15	ASHWIN JOHN	S6	Adwish
16	ASWIN BABU M V	S6	Shumb.
17	MOHAMMED SHAD ABDUL SATHAR	S6	
18	SOURAG K	S6	owo -
19	ARJUN SHYLESH	S6/	AM
20	ASHISH K	86	Admitt



# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



#### CERTIFICATE OF PARTICIPATION

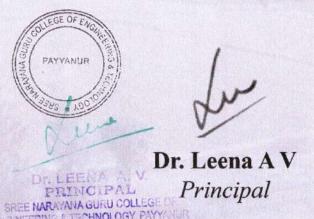
This is to certify that Sandesh K Dinesh of Sree Narayana Guru College of Engineering and Technology has attended the Five day workshop on 3D Printing organized by the Department of Mechanical Engineering, Sree Narayana Guru College of Engineering and Technology from 13/03/2023 to 17/03/2023

Jahrs .

Dr. Sudhin Chandran
Co-ordinator

Mr. Jacob Thomas

Head of the Department





#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **FEEDBACK FORM**

#### Submitted by the Department of Mechanical Engineering

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills		P		
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation		d		
6. Were the hands-on activities beneficial in understanding concepts	9			
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory	9			
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field	I			
	1			



#### **5 DAY WORKSHOP ON 3D PRINTING**

#### FEEDBACK FORM

#### Submitted by the Department of Mechanical Engineering

	Excellent	Good	Fair	Poor
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9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				

Arwag A



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **FEEDBACK FORM**

#### Submitted by the Department of Mechanical Engineering

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills	· 🔲 .			
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session	Ø			
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply	1			
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field	, 🗆			
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## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

#### **5 DAY WORKSHOP ON 3D PRINTING**

#### **FEEDBACK FORM**

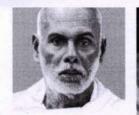
#### Submitted by the Department of Mechanical Engineering

		Excellent	Good	Fair	Poor
	1. Overall how would you rate the training class?				
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	3. Were the interactive elements engaging and beneficial				
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	5. Did this class meet your expectation				
	6. Were the hands-on activities beneficial in understanding concepts				
	7. Did the workshop offer practical strategies or tools that you can readily apply				
	8. Were the technical aspects during the workshop satisfactory		J		
	9. Rate the level of interaction between the facilitator and participants				
)	10. Did the workshop covers emerging trend or advancements in the field				



# Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



Department of Mechanical Engineering

Organising

# 5 DAYS WORKSHOP ON ADDITIVE MANUFACTURING

#### Key Highlights:

- Powder metallurgy
- Sheet Lamination
- Powder Mixing
- Material Extrusion

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR
KANNUR

**DATE** 18-22 October 2021



09.00 AM - 05.00 PM

**REGISTER NOW** 

Exclusively for Final Year students



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### 5Day Online Workshop on ADDITIVE MANUFACTURING, October 18 to 22, 2021

		DAY 1
Date	Time	
	9:00 AM-9:15 AM	Introduction by Coordinator Mr. Manuraj T V, Dept. of ME, SNGCET
	9:15 AM-9:25 AM	Departmental address by  Mr. Chandrajith E  HoD, Dept. of ME, SNGCET
18-10-2021	9:30 AM-12:30 PM	Expert talk by Dr. Solamon Joseph, Lecturer ME, GPC Periye, Kasargod.  Title: Introduction to Additive Manufacturing (Overview of Additive Manufacturing (AM) technologies, Historical development and current trends in AM,)
		Expert talk by Dr. Solamon Joseph, Lecturer ME, GPC Periye, Kasargod.
	01:30 PM-5:00 PM	Title: Introduction to Additive Manufacturing (Types of 3D printing processes (FDM, SLA, SLS, etc, Basic principles of CAD modeling for 3D printing.)
	# 	al serie

		DAY 2
19-10-2021	9:00 AM-12:00 PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur
0		Title: AM Technologies and Materials (In-depth look at different AM technologies, Selection criteria for choosing appropriate AM technology,)
	01:00PM-5:00PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur  Title: AM Technologies and Materials (Materials used in additive manufacturing (polymers, metals, ceramics, Material properties and their
		impact on print quality and applications))  DAY 3
20-10-2021	9:00 AM-12:30 PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur
		Title: Design for Additive Manufacturing (DFAM) (Principles of Design for Additive Manufacturing (DFAM), Design guidelines and considerations for AM.)
	01:30PM-5:00PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur
		Title: Design for Additive Manufacturing (DFAM) (Optimizing designs for strength, weight reduction, and functionality, Designing for support structures and post-processing considerations)

		DAY 4
, ·	09:00 AM-12:00 PM,	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.
21-10-2021		Title: Advanced AM Topics (Post-processing techniques (cleaning, curing, heat treatment, finishing, Quality control and inspection methods for AM parts,
	01:00PM-5:00PM	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.  Title: Advanced AM Topics (Simulation tools for predicting AM outcomes, Integration of AM with traditional manufacturing processes (hybrid manufacturing))
	L	DAY 5
22-10-2021	9:00 AM-12:00 PM	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.  Title: Industrial Applications and Future Directions (Industry-focused case studies showcasing successful integration of AM in production workflows.)
	1:00 PM-5:00 PM	Expert talk by Mr. Jacob Thomas Worshop Superintendent, GPC Periye, Kasargod.
		Title: Industrial Applications and Future Directions (Regulatory considerations and standards for AM in critical sectors (e.g., medical devices, aerospace), Closing remarks, certificate distribution, and networking opportunities.)



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### 5 DAY ONLINE WORKSHOP ON ADDITIVE MANUFACTURING

#### **SYLLABUS**

#### Day 1: Introduction to Additive Manufacturing

- Overview of Additive Manufacturing (AM) technologies
- · Historical development and current trends in AM
- Types of 3D printing processes (FDM, SLA, SLS, etc.)
- Basic principles of CAD modeling for 3D printing

#### Day 2: AM Technologies and Materials

- In-depth look at different AM technologies (FDM, SLA, SLS, DMLS, etc.)
- Selection criteria for choosing appropriate AM technology
- Materials used in additive manufacturing (polymers, metals, ceramics)
- Material properties and their impact on print quality and applications

#### Day 3: Design for Additive Manufacturing (DFAM)

- Principles of Design for Additive Manufacturing (DFAM)
- · Design guidelines and considerations for AM
- Optimizing designs for strength, weight reduction, and functionality
- Designing for support structures and post-processing considerations

#### Day 4: Advanced AM Topics

- Post-processing techniques (cleaning, curing, heat treatment, finishing)
- Quality control and inspection methods for AM parts
- Simulation tools for predicting AM outcomes
- Integration of AM with traditional manufacturing processes (hybrid manufacturing)

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KANNUR

#### Day 5: Industrial Applications and Future Directions

- Industry-focused case studies showcasing successful integration of AM in production workflows.
- Regulatory considerations and standards for AM in critical sectors (e.g., medical devices, aerospace).
- · Closing remarks, certificate distribution, and networking opportunities.



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY ONLINE WORKSHOP ON ADDITIVE MANUFACTURING**

#### NAME LIST

S.NO	NAME	SEMESTER
1	ABHIRAM M	S8
2	ABHIRAM S	S8
3	ABHISHEK DHANARAJ	S8
4	AMALJITH PUTHUSSERY	S8
5	JUNAID AHAMED K V	S8
6	MOHAMMED YUNUS	S8
7	MUHAMMAD SHAMIR K	S8
8	MUHAMMED AJMAL ABDULLA	S8
9	NIKHIL KRISHNA MV	S8
10	NIVED . K.	S8
11	VIJIL P	S8
12	VISHNU JAYENDRAN P V	S8



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **5 DAY ONLINE WORKSHOP ON ADDITIVE MANUFACTURING**

#### ATTENDENCE LIST

S.NO	NAME	SEMESTER	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
1	ABHIRAM M	S8	P	P	P	P	P
2	ABHIRAM S	S8	P	P	P	P	P
3	ABHISHEK DHANARAJ	S8	P	P	P	P	P
4	AMALJITH PUTHUSSERY	S8	P	P	P	P	P
5	JUNAID AHAMED K V	S8	P	P	P	P	P
6	MOHAMMED YUNUS	S8	P	P	P	P	P
7	MUHAMMAD SHAMIR K	S8	P	P	P	P	P
8	MUHAMMED AJMAL ABDULLA	S8	P	P	P	P	P
9	NIKHIL KRISHNA MV	S8	P	P	P	P	P
10	NIVED . K.	S8	P	P	P	P	P
11	VIJIL P	S8	P	P	P	P	P
12	VISHNU JAYENDRAN P V	S8	P	P	P	P	P



#### DEPARTMENT OF MECHANICAL ENGINNERING

#### 5 DAY ONLINE WORKSHOP REPORT ON ADDITIVE MANUFACTURING

The Department of Mechanical Engineering (ME) conducted the "Workshop on Additive Manufacturing" from October 18th to October 22th, 2021, commencing at 9 AM in the seminar hall of the Mechanical department. This workshop was tailored for final year mechanical students and was also attended by staff members from SNGCET. Due to COVID 19 outbreak the workshop was conducted through google meet.

The event began with a welcoming address from Mr. Manuraj T V, Assistant Professor of ME and the event coordinator, who expressed gratitude to all participants and faculty members for their enthusiastic support.

Mr. Chandrajith E, the esteemed Head of the Department, extended a warm welcome to kick off the workshop. Expert insights were shared by Dr. Abdul Nazar K P, Dr. Solamon Joseph, and Mr. Jacob Thomas.

Over the course of five days, the workshop aimed to equip participants with comprehensive knowledge and practical skills in the field of 3D printing technologies, covering technology fundamentals, materials, design considerations, advanced topics, and hands-on experience.

The initial day focused on introducing participants to additive manufacturing, covering the history and evolution of 3D printing technologies, as well as the various types of AM processes. Participants gained understanding of different 3D printing technologies and learned how to select the appropriate one based on project requirements. Material aspects of additive manufacturing, including properties and their impact on print quality and applications, were also discussed.

The Additive Manufacturing Workshop was deemed successful, with participants gaining a solid understanding of 3D printing technologies and practical skills in designing and manufacturing parts using additive techniques. Positive feedback was received from attendees, highlighting the value of hands-on experience and the comprehensive coverage of AM topics. Participants departed the workshop equipped to apply additive manufacturing principles in their respective fields, contributing to the ongoing advancement of this rapidly evolving technology.

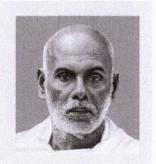
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ENGINEERING & TECHNOLOGY, PAYYANUR

KANNUR



# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



#### **CERTIFICATE OF PARTICIPATION**

This is to certify that Nived K of Sree Narayana Guru College of Engineering and Technology has attended the online workshop on Additive Manufacturing organized by the Department of Mechanical Engineering, Sree Narayana Guru College of Engineering and Technology from 18/10/2021 to 22/10/2021.

Manurey

Dr. LEENA A. V. PRINCIPAL

SREE NARAYANA GURU COLLEGE OF GINEERING & TECHNOLOGY, PAYYANUR

Mr. Manuraj T V

Co-ordinator

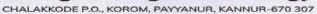
Mr. Chandrajith E
Head of the Department

Dr. V K Janardhanan

Principal



### Sree Narayana Guru College of Engineering & Technology





#### FEEDBACK FORM

l No	Name	Email ID	Feedback Questions	Ratings
			Overall how would you rate the training class?	Excellent
			How would you rate the trainer's communication	
		ļ	and presentation skills?	Excellent
	-,		Whether the interactive elements engaging and	
			beneficial?	Excellent
	1 87		Did you receive enough opportunity for questions and clarification during the session?	Excellent
	1 ABHIRAM M	abhiabhi007@gmail.com	Did this class meet your expectation?	Excellent
			Did the workshop offer practical strategies or	- Lineanieni
			tools that you can readily apply	Excellent
			Whether the technical aspects during the	Executeri
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	EXCENCIA
			facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	LACEHEIIC
			advancements in the field	Excellent
			Overall how would you rate the training class?	Excellent
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			and presentation skills?	Good
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				Fusallani
			beneficial?	Excellent
			Did you receive enough opportunity for questions	
			and clarification during the session?	Excellent
	2 ABHIRAM S	abhiramabhi15@gmail.com	Did this class meet your expectation?	Excellent
			Did the workshop offer practical strategies or	
			tools that you can readily apply	Good
			Whether the technical aspects during the	
			workshop satisfactory?	Good
		P	Rate the level of interaction between the	
			facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	
			advancements in the field	Excellent
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			and presentation skills?	Excellent
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			beneficial?	Excellent
			- 3	
			Did you receive enough opportunity for questions	
			and clarification during the session?	Excellent
	JUNAID AHAMED K V	ahamedkv@gmail.com	Did this class meet your expectation?	Excellent
			Did the workshop offer practical strategies or	
			tools that you can readily apply	Excellent
			Whether the technical aspects during the	
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	
			facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	
			advancements in the field	Excellent

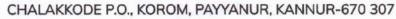
			Overall how would you rate the training class?	Good
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			and presentation skills?	Good
			Whether the interactive elements engaging and	
			beneficial?	Exceller
	ABUICHEV		Did you receive enough opportunity for questions and clarification during the session?	Exceller
4	ABHISHEK	dhanarajabhi010@gmail.com	Did this class meet your expectation?	Exceller
	DHANARAJ		Did the workshop offer practical strategies or	
			tools that you can readily apply	Exceller
			Whether the technical aspects during the	
			workshop satisfactory?	Good
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			facilitator and participants.	Good
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			How would you rate the trainer's communication	
			and presentation skills?	Excelle
			Whether the interactive elements engaging and	
	1		beneficial?	Excelle
		amaljithgreat14@gmail.com	Did you receive enough opportunity for questions	
	AMALITH		and clarification during the session?	Excelle
5	PUTHUSSERY		Did this class meet your expectation?	Excelle
	POTHOSSERT		Did the workshop offer practical strategies or	
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6	MUHAMMAD SHAMIR K	shamir 9745@gmail.com	Overall how would you rate the training class?  How would you rate the trainer's communication and presentation skills?  Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions	Exceller Exceller Exceller
6	MUHAMMAD SHAMIR K	shamir9745@gmail.com	Overall how would you rate the training class?  How would you rate the trainer's communication and presentation skills?  Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session?	Exceller  Exceller  Exceller  Exceller  Exceller  Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session?  Did this class meet your expectation?	Exceller Exceller Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session?  Did this class meet your expectation?  Did the workshop offer practical strategies or	Exceller  Exceller  Exceller  Exceller  Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session?  Did this class meet your expectation?  Did the workshop offer practical strategies or tools that you can readily apply	Exceller  Exceller  Exceller  Exceller  Exceller  Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session? Did this class meet your expectation? Did the workshop offer practical strategies or tools that you can readily apply Whether the technical aspects during the workshop satisfactory?	Exceller  Exceller  Exceller  Exceller  Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session? Did this class meet your expectation? Did the workshop offer practical strategies or tools that you can readily apply Whether the technical aspects during the workshop satisfactory? Rate the level of interaction between the	Exceller  Exceller  Exceller  Exceller  Exceller  Exceller  Exceller
6		shamir9745@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session? Did this class meet your expectation? Did the workshop offer practical strategies or tools that you can readily apply Whether the technical aspects during the workshop satisfactory?	Exceller  Exceller  Exceller  Exceller  Exceller  Exceller

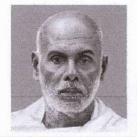
			Overall how would you rate the training class?	Excellent
			How would you rate the trainer's communication	A T
			and presentation skills?	Good
			Whether the interactive elements engaging and	,
			beneficial?	Excellent
			Did you receive enough opportunity for questions	
			and clarification during the session?	Excellent
	7 MOHAMMED YUNUS	yunus1437@gmail.com	Did this class meet your expectation?	Excellent
			Did the workshop offer practical strategies or	
			tools that you can readily apply	Excellent
			Whether the technical aspects during the	
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	
			facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	
			advancements in the field	Excellent
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	1		and clarification during the session?	Excellen
	8 VIJIL P	vijilppnair12@gmail.com	Did this class meet your expectation?	Excellent
	O VISIL F	Vijipphan 12@gman.com	Did the workshop offer practical strategies or	Excellent
	1		tools that you can readily apply	Excellent
	1		Whether the technical aspects during the	Excellent
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	excellent
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			facilitator and participants.	Excellent
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			and presentation skills?	Excellent
			Whether the interactive elements engaging and	F "
			beneficial?	Excellent
			Did you receive enough opportunity for questions	
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	9 NIKHIL KRISHNA MV	nikhilmv777@gmail.com	and clarification during the session?	Good
	SINIKHIL KRISHINA IVIV	mkmmv///wgman.com	Did this class meet your expectation?	Excellent
			Did the workshop offer practical strategies or	- "
			tools that you can readily apply	Excellent
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			workshop satisfactory?	Excellent
			Rate the level of interaction between the	
		·	facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	
			advancements in the field	Excellent

			Overall how would you rate the training class?	Excellent
			How would you rate the trainer's communication	
			and presentation skills?	Excellent
			Whether the interactive elements engaging and	
			beneficial?	Good
	MUHAMMED AJMAL	IAMMED AIMAI	Did you receive enough opportunity for questions	- 27
			and clarification during the session?	Excellent
10	ABDULLA	ajmalmuh3652@gmail.com	Did this class meet your expectation?	Excellent
	The section		Did the workshop offer practical strategies or	
			tools that you can readily apply	Excellent
			Whether the technical aspects during the	
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	
			facilitator and participants.	Excellent
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			advancements in the field	Excellent
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			How would you rate the trainer's communication	
			and presentation skills?	Excellent
1			Whether the interactive elements engaging and	
			beneficial?	Excellent
	NIVED . K	nivu88@gmail.com	Did you receive enough opportunity for questions	
			and clarification during the session?	Excellent
11			Did this class meet your expectation?	Excellent
	10		Did the workshop offer practical strategies or	
			tools that you can readily apply	Excellent
			Whether the technical aspects during the	
			workshop satisfactory?	Excellent
		51 24	Rate the level of interaction between the	
			facilitator and participants.	Excellent
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			advancements in the field	Excellent
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	i blig		and presentation skills?	Excellent
			Whether the interactive elements engaging and	
			beneficial?	Excellent
			Did you receive enough opportunity for questions	
	MICHALLIAVENDOAN		and clarification during the session?	Excellent
12	VISHNU JAYENDRAN P V	vish078@gmail.com	Did this class meet your expectation?	Good
	PV		Did the workshop offer practical strategies or	
			tools that you can readily apply	Excellent
	THE		Whether the technical aspects during the	
			workshop satisfactory?	Excellent
			Rate the level of interaction between the	
			facilitator and participants.	Excellent
			Did the workshop covers emerging trend or	
			advancements in the field	1000 00 V



## **Sree Narayana Guru College of Engineering & Technology**





Department of Mechanical Engineering Organising

5 Days Workshop

ON
RENEWABLE ENERGY:
PATHWAYS
AND TECHNOLOGIES



## Key Highlights:

- Solar PV System
- Introduction to Hydroelectric Power
- · Field Trip or Virtual Tour
- Energy Storage and Grid Integration
  - Opportunities in Renewable Energy

15-19 Feb 2021

Dr. LEENA A. V.
PRINCIPAL

EL HARAYANA GURU COLLEGE OF

ELENA & TECHNOLOGY, RAYYANU

Exclusively for Final Year Students



### DEPARTMENT OF MECHANICAL ENGINEERING

### 5Day Online Workshop on RENEWABLE ENERGY: PATHWAYS AND TECHNOLOGIES, February 15-19, 2021

	>	DAY 1
Date	Time	
	9:00 AM-9:15 AM	Introduction by Coordinator Mr. Manuraj T V, Dept. of ME, SNGCET
	9:15 AM-9:25 AM	Departmental address by  Mr. Chandrajith E  HoD, Dept. of ME, SNGCET
15-02-2021 (Monday)	9:30 AM-12:30 PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET
		Title: Introduction to Renewable Energy (Overview of Renewable Energy Sources, Importance of Renewable Energy in Sustainable Development)
112		Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET
	01:30 PM-5:00 PM	Title: Introduction to Renewable Energy (Solar Energy Technologies, Photovoltaic (PV))

		DAY 2
é	9:00 AM -12:30 PM	Expert talk by Mr. Aswin P Assistant Professor, Dept of ME, SNGCET
16-02-2021 (Tuesday)		Title: Wind and Hydroelectric Power (Wind Energy Fundamentals, Wind turbine technology and design, Offshore vs onshore wind farms, Introduction to Hydroelectric Power, Types of hydroelectric systems)
	01:30 PM-5:00 PM	Expert talk by  Mr. Aswin P  Assistant Professor, Dept of  ME, SNGCET  Title: Wind and Hydroelectric Power (Small Hydropower and Micro-Hydro Systems, Wind and Hydro Energy Integration in Power Grids, Case Study: Wind Farm or Hydroelectric Project Analysis)
	<del></del>	DAY 3
	9:00 AM-12:30 PM	Expert talk by Mr. Manuraj T V Assistant Professor, Dept of ME, SNGCET
17-02-2021 (Wednesday )		Title: Bioenergy and Geothermal Energy (Bioenergy Overview, Biomass sources and conversion technologies, Biogas production and applications, Geothermal Energy Basics, Geothermal heat pumps, Geothermal power generation).
	01:30PM-5:00PM	Expert talk by  Mr. Manuraj T V  Assistant Professor, Dept of  ME, SNGCET
	3	Title: Bioenergy and Geothermal Energy (Environmental and Social Impacts of Bioenergy, Geothermal Exploration and Reservoir Engineering.)

		DAY 4		
		Expert talk by Mr. Chandrajith E		
	09:00 AM-12:00 PM,	HoD, Dept. of ME, SNGCET		
18-02-2021 (Thursday )	9	Title: Energy Storage and Grid Integration (Importance of Energy Storage in Renewable Energy Systems, Battery Technologies for Grid Scale and Off-Grid Applications, Overview of Pumped Hydro Storage ar Other Storage Methods.)		
		Expert talk by		
	(4)	Mr. Chandrajith E		
	01:00PM-5:00PM	HoD, Dept. of ME, SNGCET		
		Title: Energy Storage and Grid Integration (Smart Grid Technologies and Demand Response, Grid Integration Challenges and Solutions, Case Studies on Successful Renewable Energy Grid Integration.)		
		DAY 5		
	9:00 AM-12:30 PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET		
19-02-2021 (Friday)		Title: Policy, Economics, and Future Trends (Renewable Energy Policies and Incentives, Financing Renewable Energy Projects, Techno-Economic Analysis of Renewable Energy Systems.)		
	01:30 PM-5:00 PM	Expert talk by  Mr. Lipin K  Assistant Professor, Dept of ME, SNGCET		
		Title: Policy, Economics, and Future Trends (Emerging Trends in Renewable Energy Research and Development, Role of Innovation and Entrepreneurship in Renewable Energy.)		



#### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY ONLINE WORKSHOP ON RENEWABLE ENERGY: PATHWAYS AND TECHNOLOGIES

### **SYLLABUS**

### Day 1: Introduction to Renewable Energy

#### **Morning Session**

- · Overview of Renewable Energy Sources
- Importance of Renewable Energy in Sustainable Development
- Global Energy Trends and Renewable Energy Targets

### **Afternoon Session**

- Solar Energy Technologies
- Photovoltaic (PV) systems
- Concentrated Solar Power (CSP)
- Hands-on Activity: Solar PV System Design Exercise

### Day 2: Wind and Hydroelectric Power

#### **Morning Session**

- Wind Energy Fundamentals
- Wind turbine technology and design
- Offshore vs. onshore wind farms
- Introduction to Hydroelectric Power
- Types of hydroelectric systems

#### **Afternoon Session**

- Small Hydropower and Micro-Hydro Systems
- Wind and Hydro Energy Integration in Power Grids
- Case Study: Wind Farm or Hydroelectric Project Analysis

### Day 3: Bioenergy and Geothermal Energy

#### **Morning Session**

- Bioenergy Overview
- · Biomass sources and conversion technologies
- · Biogas production and applications
- · Geothermal Energy Basics
- · Geothermal heat pumps
- · Geothermal power generation

#### **Afternoon Session**

- Environmental and Social Impacts of Bioenergy
- Geothermal Exploration and Reservoir Engineering
- · Field Trip or Virtual Tour: Geothermal Site Visit or Biomass Facility

### Day 4: Energy Storage and Grid Integration

#### **Morning Session**

- · Importance of Energy Storage in Renewable Energy Systems
- · Battery Technologies for Grid-Scale and Off-Grid Applications
- Overview of Pumped Hydro Storage and Other Storage Methods

#### Afternoon Session

- Smart Grid Technologies and Demand Response
- Grid Integration Challenges and Solutions
- Case Studies on Successful Renewable Energy Grid Integration

### Day 5: Policy, Economics, and Future Trends

#### **Morning Session**

- · Renewable Energy Policies and Incentives
- Financing Renewable Energy Projects
- Techno-Economic Analysis of Renewable Energy Systems

#### Afternoon Session

- Emerging Trends in Renewable Energy Research and Development
- Role of Innovation and Entrepreneurship in Renewable Energy
- Panel Discussion: Future Outlook and Opportunities in Renewable Energy



#### DEPARTMENT OF MECHANICAL ENGINEERING

#### 5 DAY ONLINE WORKSHOP ON RENEWABLE ENERGY: PATHWAYS AND TECHNOLOGIES

### STUDENT NAME LIST

S.NO	NAME	SEMESTER
1	ABDULLA K K	S8
2	АВНІЛІТН К М	S8
3	AKSHAY SURENDRAN P	S8
4	ARJUN RAVEENDRAN K A P	S8
5	ARUN C	S8
6	MOHAMMED SAIF ABDUL RAUF	S8
7	MUHAMMED P P	S8
8	MUHAMMED RAIHAN	S8
9	SALMAN SADIQUE	S8
10	DEEDTH DUDI GUOTHAMAN	S8
11	DEEPTH PURUSHOTHAMAN  FAHEEM ALI	S8
12	SUFIYAN BIN ABDUL NASSAR	S8



#### DEPARTMENT OF MECHANICAL ENGINEERING

### **5 DAY ONLINE WORKSHOP ON RENEWABLE ENERGY: PATHWAYS AND TECHNOLOGIES**

### ATTENDENCE LIST

S.NO	NAME	SEMESTER	DAY	DAY	DAY	DAY	DAY
	V	11000-1	1	2	3	4	5
1	ABDULLA K K	S8	P	P	P	P	P
2	АВНІЛІТН К М	S8	P	P	P	P	P
3	AKSHAY SURENDRAN P	S8	P	P	P	P	P
4	ARJUN RAVEENDRAN K A P	S8	P	P	P	P	P
5	ARUN C	S8	P	P	P	P	P
6	MOHAMMED SAIF ABDUL RAUF	S8	P	P	P	P	P
7	MUHAMMED P P	S8	P	P	P	P	P
8	MUHAMMED RAIHAN	S8	P	P	P	P	P
9	SALMAN SADIQUE	S8	P	P	P	P	P
10	DEEPTH PURUSHOTHAMAN	S8	P	P	P	P	P
11	FAHEEM ALI	S8	P	P	P	P	P
12	SUFIYAN BIN ABDUL NASSAR	S8	P	P	P	P	P



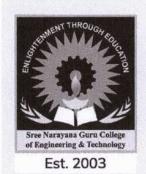
### DEPARTMENT OF MECHANICAL ENGINNERING

### REPORT ON 5 DAY ONLINE WORKSHOP ON TOPIC RENEWABLE ENERGY: PATHWAYS AND TECHNOLOGIES

The online workshop titled "Renewable Energy: Pathways and Technologies," organized by SNGCET from February 15th to 19th, 2021, provided a comprehensive exploration of fundamental principles and practices within renewable engineering. Its objective was to offer participants deep insights into diverse renewable energy sources, their applications, and the technologies propelling the shift towards sustainable energy systems. Due to the COVID outbreak the session was conducted online via Google Meet. The online workshop began promptly at 10 am, with Mr. Manuraj TV, the coordinator, delivering an insightful introduction on the subject. The departmental address followed, presented by Mr. Chandrajith E, the esteemed Head of the Mechanical Engineering Department at SNGCET.

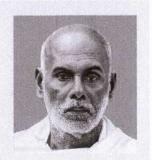
The workshop commenced by overviewing renewable energy sources, with a focus on solar, wind, hydro, biomass, and geothermal energy. Discussions underscored the global energy landscape and the pivotal role of renewables in achieving carbon neutrality. Participants engaged in detailed explorations of solar photovoltaic (PV) and wind energy systems, covering design fundamentals, technological advancements, and strategies for project implementation. Case studies were presented highlighting successful solar and wind projects worldwide. Furthermore, the workshop addressed hydroelectricity, biomass energy production, and geothermal energy utilization. Experts shared valuable insights into extracting energy from water resources, organic waste, and heat from the Earth's crust.

The "Renewable Energy: Pathways and Technologies" workshop proved to be a valuable platform for exchanging knowledge and building capacity. Participants gained practical insights and resources to contribute towards expediting the global shift to renewable energy. Ongoing collaboration and learning are crucial for overcoming obstacles and realizing the complete potential of sustainable energy solutions. The workshop attracted participants, including faculty members keen on sustainable engineering. Interactive Q&A sessions following each presentation fostered dynamic discussions, allowing participants to seek clarification on sustainable design topics.



## **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



### **CERTIFICATE OF PARTICIPATION**

This is to certify that Abhijith KM of Sree Narayana Guru College of Engineering and Technology has attended the workshop on Renewable Energy:Pathways and Technologies organized by the Department of Mechanical Engineering, Sree Narayana Guru College of

Engineering and Technology from 15/02/2021 to 19/02/2021

Mr. Manuraj T V

Co-ordinator

Mr. Chandrajith E

Head of the Department

hear

Dr. V K Janardhanan

Principal



### Sree Narayana Guru College of Engineering & Technology



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			beneficial?	Exceller
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			and clarification during the session?	Exceller
1	Abdulla K K	abdulla007@gmail.com	Did this class meet your expectation?	Exceller
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-	Abhijith K m	abhiabhi15@gmail.com	Did this class meet your expectation?	Excelle
- 2	Abinjitii k iii	abiliabili15@gillali.com		Excelle
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2	Akshay Surendran P	akshaysurendran@gmail.com		Excelle
3	AKSIIAY SUI EIIUI AII P	aksnaysurendrani@gman.com	Did this class meet your expectation?	Excene
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4	Arjun Raveendran K A P	arjunrk@gmail.com	Overall how would you rate the training class? How would you rate the trainer's communication and presentation skills? Whether the interactive elements engaging and beneficial?  Did you receive enough opportunity for questions and clarification during the session?  Did this class meet your expectation?	Excelle  Excelle
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SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYYANUR

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	Mohammed Saif	saifabdulrauf986@gmail.com	Did this class meet your expectation?	Exceller
	Abdul Rauf	San abdult aut 500@gman.com	Did the workshop offer practical strategies or	Exceller
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7	Muhammed P P	muhammed9495@gmail.com	Did this class meet your expectation?	Exceller
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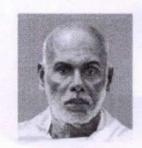
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8	Muhammed Rahan	rahanrahi@gmail.com	Did this class meet your expectation?	Excellent
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9	Salman Sadique	salmansadique777@gmail.com	Did this class meet your expectation?	Excellen
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11	Sufiyan Bin Abdul	sufiyanbinabdulnassar88@gmail.com	Did this class meet your expectation?	Good
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	Deepth Purushothaman	deepthp007@gmail.com	Did this class meet your expectation?	Excellen
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12	Purushothaman	Keen	tools that you can readily apply Whether the technical aspects during the workshop satisfactory? Rate the level of interaction between the facilitator and participants.	Excellent
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SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



## Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



**Department of Mechanical Engineering** 

> 5 Day workshop on

# Key Highlights:

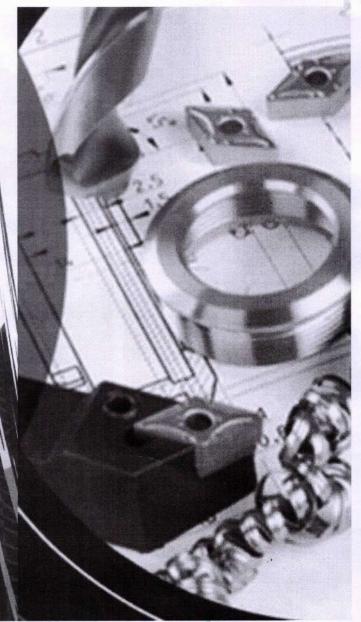
- Automobile Design and Materials
- Trends in Connected and Autononomous
- Future Challenges
- Application and Career



Date: 18-11-2019

to 22-11-2019

Exclusively for prefinal year students





### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 Day Workshop on LATEST TRENDS IN AUTOMOBILE ENGINEERING, November 18-22, 2019

	DAY 1				
Date	Time				
	9:00 AM-9:15 AM	Introduction by Coordinator Mr. Manuraj T V, Dept. of ME, SNGCET			
	9:15 AM-9:25 AM	Departmental address by  Mr. Chandrajith E  HoD, Dept. of ME, SNGCET			
18-11-2019 (Monday)	9:30 AM-12:30 PM	Expert talk by Mr. Aswin P Assistant Professor, Dept of ME, SNGCET			
		Title: Introduction to Modern Automotive Technologies. (Overview of Automotive Industry, Introduction to current automotive market trends and challenges, Evolution of automotive engineering and its impact on modern vehicles.)			
	01:30 PM-5:00 PM	Expert talk by Mr. Aswin P Assistant Professor, Dept of ME, SNGCET  Title: Introduction to Modern Automotive Technologies (Discussion on fuel cell technologies and their potential impact, Vehicle Dynamics and Control Understanding vehicle stability control systems, Introduction to advanced driver-assistance systems (ADAS)).			

		DAY 2
•	9:00 AM -12:30 PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET
19-11-2019 (Tuesday)		Title: Innovations in Automotive Design and Materials (Lightweigh Materials and Structures, Importance of lightweight materials in vehicle design, Case studies on the use of composites and advanced alloys.)
	01:30PM-5:00PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET
		Title: Innovations in Automotive Design and Materials (Overview of design optimization for aerodynamic performance, Advanced Manufacturing Techniques, 3D printing and additive manufacturing in automotive prototyping, Robotics and automation in car assembly.)
		DAY 3
20-11-2019 (Wednesday )	9:00 AM-12:30 PM	Expert talk by Mr. Chandrajith E HoD, Dept. of ME, SNGCET  Title: Emerging Trends in Connected and Autonomous Vehicles (Internet of Things (IoT) in Automotive, Connected vehicle technologies and IoT applications, Cybersecurity challenges in connected vehicles.)
	01:30PM-5:00PM	Expert talk by Mr. Chandrajith E HoD, Dept. of ME, SNGCET  Title: Emerging Trends in Connected and Autonomous Vehicles (Autonomous Driving Technologies, Levels of autonomy and current state of autonomous vehicle development, Sensors and perception systems in self-driving cars.)

		DAY 4
21-11-2019 (Thursday )	09:00 AM-12:00 PM,	Expert talk by Mr. Manuraj T V Assistant Professor, Dept of ME, SNGCET  Title: Sustainable Mobility and Future Challenges (Sustainable Automotive Solutions, Role of electric vehicles and sustainable mobility, Circular economy approaches in automotive manufacturing.)
	01:00 PM-5:00 PM	Expert talk by Mr. Manuraj T V Assistant Professor, Dept of ME, SNGCET  Title: Sustainable Mobility and Future Challenges (Urban Mobility and Smart Cities, Urban transportation challenges and solutions, Role of shared mobility and ride-sharing platforms.)
		DAY 5
22-11-2019 (Friday)	9:00 AM-12:30 PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET  Title: Industry Applications and Career Perspectives (Advanced Powertrain Technologies, Overview of electric vehicles (EVs) and hybrid vehicles)
	01:30 PM-5:00 PM	Expert talk by Mr. Lipin K Assistant Professor, Dept of ME, SNGCET
		Title: Industry Applications and Career Perspectives (Aerodynamics and Vehicle Design, Basics of aerodynamics and its role in vehicle efficiency.)



#### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

### **SYLLABUS**

### Day 1: Introduction to Modern Automotive Technologies Session 1:

- · Overview of Automotive Industry
- Introduction to current automotive market trends and challenges.
- Evolution of automotive engineering and its impact on modern vehicles.

#### Session 2:

- Discussion on fuel cell technologies and their potential impact.
- Vehicle Dynamics and Control
- Understanding vehicle stability control systems.
- Introduction to advanced driver-assistance systems (ADAS).

### Day 2: Innovations in Automotive Design and Materials Session 3:

- Lightweight Materials and Structures
- Importance of lightweight materials in vehicle design.
- Case studies on the use of composites and advanced alloys.

#### Session 4:

- Overview of design optimization for aerodynamic performance.
- · Advanced Manufacturing Techniques
- 3D printing and additive manufacturing in automotive prototyping.
- Robotics and automation in car assembly.

### Day 3: Emerging Trends in Connected and Autonomous Vehicles Session 5:

- Internet of Things (IoT) in Automotive
- Connected vehicle technologies and IoT applications.
- · Cybersecurity challenges in connected vehicles.

#### **Session 6:**

- Autonomous Driving Technologies
- Levels of autonomy and current state of autonomous vehicle development.
- · Sensors and perception systems in self-driving cars.

### Day 4: Sustainable Mobility and Future Challenges Session 7:

- Sustainable Automotive Solutions
- · Role of electric vehicles and sustainable mobility.
- · Circular economy approaches in automotive manufacturing.

#### Session 8:

- · Urban Mobility and Smart Cities
- Urban transportation challenges and solutions.
- Role of shared mobility and ride-sharing platforms.

### **Day 5: Industry Applications and Career Perspectives Session 9:**

- Advanced Powertrain Technologies
- Overview of electric vehicles (EVs) and hybrid vehicles.

#### Session 10:

- · Aerodynamics and Vehicle Design
- · Basics of aerodynamics and its role in vehicle efficiency.



#### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

### **NAME LIST**

S.NO	NAME	SEMESTER	
1	ADWAITH J	S8	
2	ANWAR HUSSAIN	S8	
3	ABHISHEK M	S8	
4	ADARSH P P	S8	
5	AKSHAY KANDOTH	S8	
6	AMARNATH M	S8	
7	ASHAKH S S		
8	GOKUL RETHNAKARAN S8		
9	NIHAL HEMANTH	S8	
10	PRAJIN PRABHAKARAN T	S8	
11	PRASAD K K	S8	
12	RAHUL KRISHNAN K P S		
13	SHAROON M P	S8	
14	SIDDHARTH M	S8	



#### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

### ATTENDENCE LIST

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5	AKSHAY KANDOTH	S8	Hol	Harry	DAY.	ALA	ALL
6	AMARNATH M	S8	Munter	Marinde	- Jean Ha	Januar Del	French
7	ASHAKH S	S8	Johath	Afoto	Ashah	Abok	Ashatk
8	GOKUL RETHNAKARAN	S8	GeD.	20	P. (	D.	Ged.
9	NIHAL HEMANTH	S8	ALEX	Delice	MA	pal	MA
10	PRAJIN PRABHAKARAN T	S8	RIF	Both	PAR	Prof	Ryp
11	PRASAD K K	S8	Book:	Jack.	Wrest.	Bal	Pools
12	RAHUL KRISHNAN K P	S8	R.K.	A		Pet	20
13	SHAROON M P	S8	May	-	100 L	881	Bol.
14	SIDDHARTH M	S8	Checha 13	- didhan	Olation,	destan	olithing



### DEPARTMENT OF MECHANICAL ENGINNERING

### WORKSHOP REPORT ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

The workshop on the latest trends in automobile engineering, held by SNGCET from November 18th to 22nd, 2019, provided a comprehensive exploration of fundamental principles and practices in this dynamic field. The objective was to offer participants insights into various sources of automobile technology, their applications, and the transformative technologies driving this transition. The session commenced promptly at 9am with an introduction by Mr. Manuraj TV, the coordinator. Mr. Chandrajith E, the esteemed Head of the Mechanical Engineering Department at SNGCET, delivered the departmental address.

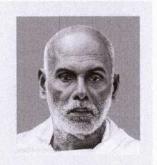
The workshop began with an overview of automobile engineering, emphasizing its continual evolution driven by technological advancements, changing consumer demands, and environmental concerns. This report highlights the latest trends shaping the automobile industry, including innovations in electric vehicles (EVs), autonomous driving, connectivity, materials, and sustainability.

The trends in automobile engineering are increasingly oriented towards electric, autonomous, connected, and sustainable mobility solutions. Technological advancements, combined with evolving consumer preferences and regulatory frameworks, are reshaping the automotive landscape towards a more efficient, safer, and environmentally friendly transportation future. Industry stakeholders must persist in innovation and collaboration to fully realize the potential of these trends and effectively address the challenges of tomorrow's mobility ecosystem.



## **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



### CERTIFICATE OF PARTICIPATION

This is to certify that Adarsh P P of Sree Narayana Guru College of Engineering and Technology has attended the workshop on Latest Trends in Automobile Engineering organized by the Department of Mechanical Engineering, Sree Narayana Guru College of

Engineering and Technology from 18/11/2019 to 22/11/2019.

Mr. Manuraj T V

Co-ordinator

Mr. Chandrajith E

PRINCIPAL

RAYANA GURU COLLEGE OF Head of the Department

NGINEERING & TECHNOLOGY, PAYYAMUR
KANNUR

hlae

Dr. V K Janardhanan Principal



### 5 DAY WORKSHOP ON 5 DAY WORKSHOP ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

### **FEEDBACK FORM**

### Submitted by the Department of Mechanical Engineering

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?				
2. How would you rate the trainer's communication and presentation skills				
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				

prasad k.k.



## SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

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### 5 DAY WORKSHOP ON 5 DAY WORKSHOP ON LATEST TRENDS IN AUTOMOBILE ENGINEERING

### **FEEDBACK FORM**

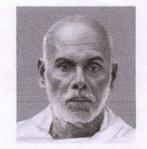
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## Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



Est. 2003

### **Department of Mechanical Engineering**

5 Day workshop

# Master CAM

### **Key Highlights:**

- 3 D modelling
- Machining Simulation
- Post Processing Operations for 3D printed object
- Toolpath Simulation

Date: 18-02-2019 to 22-02-2019 Venue: CAD/CAM Lab

Exclusively for prefinal year students



Dr. LEENA A. V. SREE NARAYANA GURU COLLEGE OF



### DEPARTMENT OF MECHANICAL ENGINEERING

### 5Day Workshop on MASTERCAM: CNC PROGRAMMING, February 18-22, 2019

	DAY 1				
Date	Time				
	9:00 AM-9:15 AM	Introduction by Coordinator Mr. Manuraj T V, Dept. of ME, SNGCET			
	9:15 AM-9:25 AM	Departmental address by  Mr. Chandrajith E  HoD, Dept. of ME, SNGCET			
18-02-2019 (Monday)	9:30 AM-12:30 PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur			
		Title: 2D geometric commands and the applications.			
	01:30 PM-5:00 PM	Expert talk by Dr. Abdul Nazar K P, Associate Professor Dept of Mechanical Engineering, GEC Kannur			
		Title: 2D geometric commands and the applications.			
		None			

		DAY 2
	9:00 AM-12:30 PM	Expert talk by  Dr. Solamon Joseph,  Lecturer ME, GPC Periye, Kasargod.
19-02-2019 (Tuesday)		Title: Translation commands for 2D geometry editing.
	01:30PM-5:00PM	Expert talk by  Dr. Solamon Joseph,  Lecturer ME, GPC Periye, Kasargod.  Title: Featuring 2D geometry for 2D tool path, Contouring tool path generation.
		DAY 3
20-02-2019 (Wednesday	9:00 AM-12:30 PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur
)		Title: Simulation of generated tool path, Generation of NC part program with the suitable post processor.
	01:30PM-5:00PM	Expert talk by  Dr. Abdul Nazar K P,  Associate Professor  Dept of Mechanical Engineering, GEC  Kannur
		Title: 3D modelling and solid editing, Translation of 3D models.

		DAY 4
	09:00 AM-12:00 PM,	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.
21-02-2019 (Thursday )	2	Title: Assigning operation parameters for 3D models to be machined.
	01:00PM-5:00PM	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.  Title: 3D machining Simulation.
		DAY 5
22-02-2019 (Friday)	9:00 AM-12:30 PM	Expert talk by Mr. Jacob Thomas, Worshop Superintendent, GPC Periye, Kasargod.  Title: post-processing operations for 3D printed objects.
	01:30 PM-5:00 PM	Expert talk by Mr. Jacob Thomas Worshop Superintendent, GPC Periye, Kasargod.
		Title: Assigning operation parameters for 3D models to be machined, 3D machining Simulation.



### DEPARTMENT OF MECHANICAL ENGINEERING

### **5 DAY WORKSHOP ON MASTER CAM**

### MasterCam Training Syllabus

### Day 1

### I. MasterCam Configuration/Settings:

- Operating PC, Hardware Accelerations Settings
  - Typically Second Mark from Left on Slider Bar
    - To Access Hardware Settings: Go to Desktop > Right Click > Select Properties > Select Settings > Select Advanced > Select TroubleShoot > Adjust Hardware Acceleration Slider bar.
- > HELP Option
  - Use feature for learning assistance.
    - Also, use quick learning mode (Hover Mouse cursor over icons on screen to see popup that tells function of particular icon or button)
  - Explain Update Feature which checks for software updates
  - o Explain Zip2 go Feature which is used for technical support reasons
- ➤ MasterCam Settings/Configuration (SETTINGS > CONFIGURATION or ALT + F8)
  - Most commonly altered settings per user
    - Setup Colors
    - Setup Default Machines
    - Start/Exit (Setting to personal Settings)
  - How to Save/Exit Custom Config file.
  - o How to Load exist custom file and set to default

### II. Screen Layout:

- Toolbar display (Type MRU in HELP menu for greater details)
  - o Select: SETTINGS > Toolbar States
  - Show how Toolbars can be moved about screen to desired location
- Status Bar (Located Bottom of Screen)
  - o 3D/2D
  - o GVIEW (Graphics View)
    - o Explain Various Views
      - Only Router Pro Students: Explain "View By Entity"
        - Used Two lines to create New GView for Tool Control or

- Used One line to create New GView for Tool Control or Designing purposes
  - Be sure to select "Normal" line at base to project arrow away from part
- o PLANES
  - Use for construction of geom. DO NOT USE for creating new tool Control Lines or views
- o Z Depth
- o Colors
  - Changing Colors
- o Levels
  - Changing Levels
- o Attributes
  - Changing Attributes
  - Explain how Attribute dialogue can be used to change Color, Line type, Layer etc....
- Right Click Menu
  - o Zoom./Unzoom
    - Explain common optional features: F1 (Zoom Window), F2 (Zoom previous)
- > Operations Manager
  - o Briefly Describe that it is to be used for managing toolpath information.

#### III. Intro. to Creating CAD Geometry (Sketch geom. on screen on demand)

- Using CREATE Option (Explain that Yellow input fields allow input with math functions)
  - o Lines (All)
  - o Circles/Arcs (All)
    - Tangent Entities
  - o Points (All)
  - o Rectangles
  - o Rectangular shapes
  - o Polygons
  - o Ellipses
  - o Bounding Box (2D)
  - o Letters
  - Splines
    - Manual
    - Automatic
    - Curves (Only Router Pro Students)
      - > Used to apply wireframe geom. to existing surfaces
    - Blended (Only Router Pro Students)
      - > Typically used to attach arcs in 3D space
        - Use Magnitude to Adjust

- o Fillets
- o Chamfers
- o Primitives (Only Router Pro Students)
- Using ANALYZE option
  - o Explain how this feature can also be used as Editing Feature
- ➤ Using EDIT > Trim/Break option
  - o Trimming Entities
  - Breaking Entities
  - o Extending Entities
- Using XFORM option
  - o Translate
  - o Rotate
  - o Mirror
  - o Scale
    - o Uniform/XYZ
  - o Offset Contour
  - o Offset
  - o Transform Rectangular Array
  - o Drag
  - o Stretch
  - o Nesting: Rectangular/Tru-Shape
    - o Explain Groups/Resulting Colors
    - o Explain how to Clear Colors (Right Click > Clear Colors)

### Day 2

### IV. Creating 2D MasterCam - Toolpath file

- Distribute and Load post files
  - o Post files
    - o .PST (C:\McamX2\router\posts)
    - o .TXT (C:\McamX2\router\posts)
  - Machine Files
    - Control (C:\McamX2\cnc\_machines)
    - RMD (C:\McamX2\cnc machines)
- Setup Tools in Tool Manager
  - o Create Tool File per customer
    - Select: TOOLPATHS > Tool Manager
- Machine Type
  - o Select: MACHINE TYPE option
    - Explain this can be setup through Configuration Defaults so that when file is opened, machine group will already exist in Operations manager.
  - o Once Machine Type is Loaded Explain PROPERTIES of Machine Group
    - Go to Operations Manager Select: Machine Group > Select: PROPERTIES
      - Explain Tool Setup
        - "Assign Tool Numbers Squentially"
          - Be sure this is NOT Checked
      - Explain Stock Setup
        - o Displays stock based on user input
        - o Allows visual for Verify Feature
- ➤ Appling Tool Paths to 2D Parts
  - o Open and explain "Basic-2D 1.MCX" drwg file
  - O Use "MACHINE\_CONFIG.MCX" to explain Merge File option and to show customer how they can use a machine config. Drawing to help them understand part position relative to machine work envelope and use this file as a template. If there are some common toolpaths which will be used, those toolpaths can be added to the machine config file and this file used as a Template type file (will be able to load file and simply reselect Toolpath geom. and Regenerate).
    - Explain Back Plotting feature
      - Note that backplot movements can be saved as actual geom.
    - Show Verify feature

- Explain Ability to Edit Toolpath Parameters & Selected Operation Geom.
- Show ability to Turn visibility of Tool Paths ON/OFF
- Explain Regeneration of "Dirty" Operations after they've been edited
- Explain Ability to Post CNC code
  - Drilling
    - Automatic
    - Entities
    - o Window Points
    - Mask on Arc
    - Sorting Methods
  - Pocketing (Standard)
  - Contour (2D)
    - Ramp Contour Tool path
  - Circle Tool paths/Circle Mill
- Hand out Hard copy of "Basic-2D\_1.MCX" drwg file and let student/s work through project, helping them as needed.
  - Use Additional "2D" sample drwgs. if needed for time filler and additional explanation of toolpath options.
- Working with Toolpath geom. in Operations Manager
  - Copying Toolpaths
    - Allows user to copy existing toolpath and alter settings to fit a similar geom.
      - Select: Toolpath to Copy > Right Click > Select: Copy >
        Reposition Red Arrow to desired location > Select: Red Arrow
        > Right Click > Select: Paste
  - Importing
    - o Allows user to Import Toolpath Parameters from another MCX file
      - Select: Toolpath to Copy > Right Click > Select: Copy >
        Reposition Red Arrow to desired location > Select: Red Arrow
        > Right Click > Select: Paste
  - Creating a New Toolpath Group
    - Allows user to manage Toolpaths in greater detail (ie: create a group for fixture machining, group for part trim, etc...)
      - Select: Machine Group in which you want to create a new Toolpath Group > Right Click > Select: Groups > Select: New Toolpath Group
  - Transforming toolpath
    - Allows user to Translate and Copy existing toolpath throughout material sheet

### Day 3

#### V. Creating 3D MasterCam - Toolpath file

- Intro to Three-dimensional Drawing
  - o Explain 1" Selection grid for ease of following 3D design
    - Select: SCREEN > Select: Screen Grid Settings
    - Set Grid to 1" size with .05 grid
    - Return to Graphics screen, change PLANES to show reaction with visible Grid
  - Use CREATE option to draw sample shapes in different PLANES
  - Draw 3D wireframe part
    - Open/Explain "3D\_Wireframe-1.MCX"
      - > Create part by first drawing 2D profile, then sweeping geom. into 3D part using the XFORM > Translate > JOIN feature
    - Note: For Router students planning to use the 4th Axis/Aggregate
      - > Use various PLANES (ie: Front, Side, etc...) to create tool planes for creating Horizontal boring, Mortising, tool paths
  - Hand out Hard copy of "3D\_Wireframe-1.MCX" drwg file and let student/s work through project, helping them as needed.
  - Note: At this time For Router Pro Students (Skip to next topic: Surfaces for router Students):
    - Continue Applying toolpaths to "3D Wireframe-1.MCX"
      - Create and Save a User-defined Gview/Construction Plane/Tool plane (Normal GVIEW)
        - Display this option on angled face of BLOCK
      - > Toolpath part
        - o Pocketing from Top
        - o Pocketing On Angle (Using newly defined tool plane)
        - o Contour Slot (Using newly defined tool plane)
        - o Drill Hor. Hole (Using Right Side tool plane)
- Intro to Surfaces
  - o Open/Explain "3D Surfaces-Router.mcx"
    - Create & demonstrate various primary surface methods
    - Ruled/Lofted Surfaces
      - > Differences between Ruled/Lofted
    - Revolved Surfaces
      - > Draw profile off to side and revolve geom. around a line designated as center axis to show this option
    - Swept Surfaces
    - Net Surface

- > Draw closed boundary shape to show this option
- Draft Surface
  - Extend one of the wire frame entities of "3D\_Surfaces-Router.mcx" to show this option
- Extruded Surface
  - > Draw profile off to side and extrude to show this option
- Flat Boundary Surface
  - > Draw closed boundary shape to show this option
- Secondary Surface Operations
  - Offset surfaces
  - Fence surfaces
  - Fillet Surfaces
  - Trimming Surfaces
  - Extending Surfaces
- Projecting curves onto surfaces
  - Draw entity or shape above surface of part and project to surface of existing part
- Importance of Surface Normals & how they affect surface fillets, offset surfaces, and head orientation (5 axis machining)
- o Projection normal lines from surfaces
  - Create a point on angled surface
    - > CREATE > Point > Dynamic
  - Use XFORM > XFORM Project to create line
- o Vertical (TOP PLANE) Toolpaths
  - Surface Rough
    - > Discuss Drive surfaces
    - > Check surfaces
    - > Tool Containment boundaries
    - > Depth limits
  - Surface Finish Tool paths
    - > Finish parallel
    - > Finish scallop
    - > Finish leftover
    - > Finish Pencil
- Hand out Hard copy of "3D\_Surfaces-Router.mcx" drwg file and let student/s work through project, helping them as needed.
- Note: At this time For Router Pro Students Move onto "3D\_Surfaces-Router\_Pro.mcx" file
- Continue 3D Design/Entry to 5 axis machining
  - o Open Explain "3D Surfaces-Router Pro.mcx" file
  - Create wireframe

### Day 4

- Finish any remaining surface machining 3D designing functions cut short on Day
   3.
- Multi Axis Surface Toolpaths
  - o Use "3D Surfaces-Router.mcx" &/or "3D Surfaces-Router Pro.mcx"drwg file
    - o Illustrate Multiaxis Surfacing Toolpaths
      - 5 Axis Multi Surface
        - Note that Multi Surface performs most everything Flowline does
        - Show How Flowline can be changed in ToolPath Parameters of Multi Surface
      - 5 Axis Flowline
- Multi-Axis Trim Paths
  - o Use "3D Surfaces-Router Pro.mcx" file to Illustrate
    - 5 Axis Curve
      - o Variety of tool axis control methods, e.g., lines surface, etc.
      - Variety of entry/exit strategies
      - Step increment vs. chord height wall following methods
    - 5 Axis Swarf
      - o Variety of tool axis control methods, e.g., lines surface, etc.
      - o Variety of entry/exit strategies
      - Step increment vs. chord height wall following methods
    - > 5 Axis Drill
      - o Create points on surface of part
        - CREATE > Point > Dynamic
    - Discuss Misc. Values and there affects on Posted Code
      - o Hand out and explain "PostDocXMR1&2-5AX-R1.pdf" file
        - MISC values Located in: Toolpath Parameters

### Day 5

Work with the students on any real world projects brought to class.



#### DEPARTMENT OF MECHANICAL ENGINEERING

## 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

## **STUDENTS LIST**

SL.NO	NAME
1	ADWAITH J
2	ANWARHUSSAIN
3	ABHISHEK M
4	ADARSH PP
5	AKHILMK
6	AKHILP
7	AKSHAY KANDOTH
8	AMARNATHM
9	ASHAKH S
10	GOKUL RETHNAKARAN
11	JISHNUDAS E
12	JISHNU KP
13	NIHAL HEMANTH
14	PRAJIN PRABHAKARANT
15	PRASAD KK
16	RAHULKRISHNAN KP
17	SHAROON MP
18	SIDDHARTH M
19	SREEDARSH PK
20	SREEHARI P

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ENGINEERING & TECHNOLOGY, PAYYANU
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DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

#### DAY 1 ATTENDENCE LIST

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2	ANWAR HUSSAIN	58	dis
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16	RAHUL KRISHNAN K P	SP	ahel
17	SHAROON M P	58	Thomas
18	SIDDHARTH M	38	South
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DEPARTMENT OF MECHANICAL ENGINEERING

## 5 DAY WORKSHOP ON MASTERCAM: <u>CNC PROGRAMMING</u>

#### **DAY 2 ATTENDENCE LIST**

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2	ANWAR HUSSAIN	58	Ahn
3	ABHISHEK M	88	Down
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14	PRAJIN PRABHAKARAN T	S8	Quest.
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SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

#### **DAY 3 ATTENDENCE LIST**

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3	ABHISHEK M	S8	and
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#### DEPARTMENT OF MECHANICAL ENGINEERING

## 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

#### **DAY 4 ATTENDENCE LIST**

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2	ANWAR HUSSAIN	S8	Don
3	ABHISHEK M	Se	Coon
4	ADARSH P P	28	LAA
5	AKHIL M K	58	A
6	AKHIL P	38	Mark
7	AKSHAY KANDOTH	57	Atl.
8	AMARNATH M	SP	Jan 19
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10	GOKUL RETHNAKARAN	38	Oga.
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ENGINEERING & TECHNOLOGY, PAYYANUR KANNUR



#### DEPARTMENT OF MECHANICAL ENGINEERING

### 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

#### **DAY 5 ATTENDENCE LIST**

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1	ADWAITH J	SP	whole -
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#### DEPARTMENT OF MECHANICAL ENGINNERING

#### **WORKSHOP REPORT ON MASTERCAM: CNC PROGRAMMING**

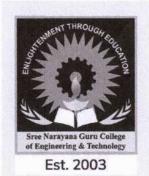
The "Workshop on MASTERCAM: CNC Programming" was conducted by the Department of Mechanical Engineering (ME) from February 18th to February 22nd, 2019, starting at 10 AM in the seminar hall of the Mechanical department. The workshop was conducted for pre-final year mechanical students. The primary objective of the workshop was to introduce students to the fundamentals of CNC programming. Apart from students, the workshop also saw participation from the staff of SNGCET. The event commenced with a welcoming speech by Mr. Manuraj T V, Assistant Professor of ME and the event coordinator, who expressed gratitude to all attendees and faculty members for their enthusiastic support.

The workshop commenced with a warm welcome from the esteemed Head of the Department, Mr. Chandrajith E. Expert insights were shared by Dr. Abdul Nazar K P, Dr. Solamon Joseph, and Mr. Jacob Thomas. Attendees were provided with hands-on experience in tasks such as creating toolpaths, generating G-code, and simulating machining operations within the Mastercam software environment. Interactive sessions and live demonstrations facilitated the acquisition of skills in utilizing Mastercam's advanced features for intricate part design and machining optimization. Moreover, the workshop covered diverse machining strategies and techniques aimed at bolstering productivity and attaining precision in CNC programming. Participants also familiarized themselves with best practices concerning tool selection, workpiece setup, and rectifying common programming errors.



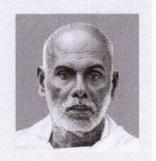
The recent workshop on Mastercam for CNC Programming provided participants with valuable insights and practical skills in computer numerical control (CNC) programming. Spanning over several sessions, the workshop delved into the fundamentals of Mastercam software, emphasizing its applications in CNC machining processes.

Overall, the workshop proved instrumental in equipping attendees with practical skills and knowledge essential for proficient CNC programming using Mastercam software. Attendees departed the session with renewed inspiration and a steadfast determination to further refine their concepts, with the aim of making a positive impact on the world through their innovative endeavors. The session, featuring informative presentations and insightful discussions, undoubtedly enriched the academic atmosphere at SNGCET. Through a blend of theoretical concepts and practical exercises, participants left the workshop with a deeper understanding of CNC programming principles and enhanced capabilities in utilizing Mastercam for optimizing machining processes.



# **Sree Narayana Guru College of Engineering & Technology**

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



## **CERTIFICATE OF PARTICIPATION**

This is to certify that AKHIL M K of Sree Narayana Guru College of Engineering and Technology has attended the workshop on MASTERCAM: CNC PROGRAMMING organized by the Department of Mechanical Engineering, Sree Narayana Guru College of

Manurey

Mr. Manuraj T V
Co-ordinator

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Engineering and Technology from 18/02/2019 to 22/02/2019, ESE OF

Dr. LEENA A. V. Mr. Chandrajith E
PRINCIPAL
SREE NARAYANA GURU COLLEGE H ead of the Department
IGINEERING & TECHNOLOGY, MYNAGER

heae

Dr. V K Janardhanan Principal



# 5 DAY WORKSHOP ON MASTERCAM: CNC PROGRAMMING

# **FEEDBACK FORM**

## Submitted by the Department of Mechanical Engineering

	Excellent	Good	Fair	Poor
1. Overall how would you rate the training class?	V			
2. How would you rate the trainer's communication and presentation skills		7		
3. Were the interactive elements engaging and beneficial				
4. Did you receive enough opportunity for questions and clarification during the session				
5. Did this class meet your expectation				
6. Were the hands-on activities beneficial in understanding concepts				
7. Did the workshop offer practical strategies or tools that you can readily apply				
8. Were the technical aspects during the workshop satisfactory				
9. Rate the level of interaction between the facilitator and participants				
10. Did the workshop covers emerging trend or advancements in the field				

Akhil P S8



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

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Spoehari P.



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# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

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