

**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY****[Approved by AICTE, Affiliated to Anna University and Accredited by NAAC & NBA (CSE, ECE & MECH)]**

Pullipalayam, Morur (Post), Sankari (Tk), Salem (Dt) – 637 304

**Website: [www.shanmugha.edu.in](http://www.shanmugha.edu.in) Contact Number: 04283-262901**

1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

**Index Sheet**

<b>S.No</b>	<b>Description</b>	<b>Page Number</b>
1	Academic council/BoS of Affiliating university	02
2	Setting of question papers for UG/PG programs	09
3	Design and Development of Curriculum for Add on/ certificate/ Diploma	27



**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY**

[Approved by AICTE, Affiliated to Anna University and Accredited by NAAC & NBA (CSE, ECE & MECH)]

Pullipalayam, Morur (Post), Sankari (Tk), Salem (Dt) – 637 304

**Website: [www.shanmugha.edu.in](http://www.shanmugha.edu.in) Contact Number: 04283-262901**

# **Academic council/BoS of Affiliating university**



# MAHENDRA ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Anna University)

## DEPARTMENT OF CIVIL ENGINEERING

**Dr. K.Vidhya** Ph.D., M.I.S.T.E.,  
Professor and Head

Cell : + 91 9842022047  
e-mail: [vidhya22047@gmail.com](mailto:vidhya22047@gmail.com)

Salem- Thiruchengode Highway, Mahendirapuri, Mallasamudram, Tamil Nadu 637503

### To whomsoever it may concern

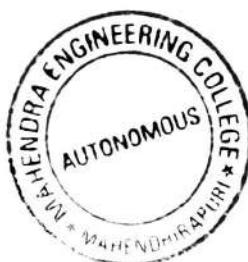
This is to certify that Mr.K.Mohan, Assistant Professor, Department of Civil Engineering, Sri Shanmuga College of Engineering and Technology, Sankari, who had completed his Master Studies in Structural Engineering in our Institute in the year 2015, has been nominated as Board of Studies (BOS)-Alumni member in the Department of Civil Engineering of our Institution for the Academic Year 2016-2017 so as to enlighten his views for the benefit of students in curriculum.

Thanking You

With regards,

**(Dr. K.Vidhya )**

**Dr. K. VIDHYA** B.E.,M.E.,Ph.D.,  
Professor and Head,  
Department of Civil Engineering  
Mahendra Engineering College (Autonomous)  
Mahendirapuri, Mallasamudram-637 503.  
Namakkal (Dt.) Tamilnadu, India



**PRINCIPAL,**  
**SRI SHANMUGA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM, MORUR-637 304.**  
**SANKAGIRI(TK).SALEM(DT).T.N.**



# MAHENDRA ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Anna University)

## DEPARTMENT OF CIVIL ENGINEERING

**Dr. K.Vidhya** Ph.D., M.I.S.T.E.,  
Professor and Head

Cell : + 91 9842022047  
e-mail: [vidhya22047@gmail.com](mailto:vidhya22047@gmail.com)

Salem- Thiruchengode Highway, Mahendhirapuri, Mallasamudram, Tamil Nadu 637503

---

### To whomsoever it may concern

This is to certify that **Mr.K.Mohan**, Assistant Professor, Department of Civil Engineering, Sri Shanmuga College of Engineering and Technology, Sankari, who had completed his Master Studies in Structural Engineering in our Institute in the year 2015, has been nominated as **Board of Studies (BOS)-Alumni member in the Department of Civil Engineering** of our Institution for the **Academic Year 2017-2018** so as to enlighten his views for the benefit of students in curriculum.

Thanking You

With regards,

**(Dr. K. Vidhya )**

**Dr. K. VIDHYA** B.E.,M.E.,Ph.D.,  
Professor and H.O.D.,  
Department of Civil Engineering,  
Mahendra Engineering College (Autonomous),  
Mahendhirapuri, Mallasamudram-637 003,  
Namakkal (Dt.) Tamilnadu, India



**PRINCIPAL,**  
**SRI SHANMUGA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM, MORUR-637 304,**  
**SANKAGIRI(TK).SALEM(DT).T.N.**



# MAHENDRA ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Anna University)

## DEPARTMENT OF CIVIL ENGINEERING

**Dr. K.Vidhya** Ph.D., M.I.S.T.E.,  
Professor and Head

Cell : + 91 9842022047  
e-mail: [vidhya22047@gmail.com](mailto:vidhya22047@gmail.com)

Salem- Thiruchengode Highway, Mahendhirapuri, Mallasamudram, Tamil Nadu 637503

---

### To whomsoever it may concern

This is to certify that **Mr.K.Mohan**, Assistant Professor, Department of Civil Engineering, Sri Shanmuga College of Engineering and Technology, Sankari, who had completed his Master Studies in Structural Engineering in our Institute in the year 2015, has been nominated as **Board of Studies (BOS)-Alumni member in the Department of Civil Engineering** of our Institution for the **Academic Year 2018-2019** so as to enlighten his views for the benefit of students in curriculum.

Thanking You

With regards,

  
**(Dr. K. Vidhya )**

**Dr. K. VIDHYA** B.E.,M.E.,Ph.D.,  
Professor and Head,  
Department of Civil Engineering  
Mahendra Engineering College (Autonomous)  
Mahendhirapuri, Mallasamudram-637 503  
Namakkal (Dt.) Tamilnadu, India

  
**PRINCIPAL,**  
**SRI SHANMUGA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM, MORUR-637 304,**  
**SANKAGIRI(TK). SALEM(DT). T.N.**



# MAHENDRA ENGINEERING COLLEGE

(An Autonomous Institution)  
(Approved by AICTE, New Delhi & Affiliated to Anna University)

## DEPARTMENT OF CIVIL ENGINEERING

Mrs. Dr. K. VIDHYA, B.E., M.E (Struct.), Ph.D., M.I.S.T.E.,  
Professor & Head

Cell : +91 9842022047  
e-mail : vidhya22047@gmail.com

Salem- Thiruchengode Highway, Mahendirapuri, Mallasamudram,  
Tiruchengode - Tamil Nadu, India.

Ref: MEC/Autonomous/2018-19/CIVIL/005

Date: 18.02.2019

To

Mr.K.Mohan  
Assistant Professor  
Sri Shanmuga College of Engineering and Technology  
Tiruchengode

Dear sir,

Sub: Mahendra Engineering College – Autonomous –BoS – seventh meeting– Reg.

With reference to the subject cited above, We would like to invite you as Alumini for the seventh meeting of the Board of studies scheduled on 20<sup>th</sup> February 2019 at 1.30 P.M in the Board room for the revision / amendment, in the Curriculum / Syllabi of Regulations - 2017 and 2019.

Hence, we request you to attend the meeting to finalize the revision / amendment, in the Syllabi (5<sup>th</sup> to 8<sup>th</sup> Semester) of Regulations - 2017 and Curriculum / Syllabi (1<sup>st</sup> to 4<sup>th</sup> Semester) of Regulation 2019. The Examiners panel and Innovation teaching & evaluation techniques will also be discussed in this meeting.

Thanking you,

With regards

(Dr. K. VIDHYA)

Head of the Department,  
Department of Civil Engineering  
Mahendra Engineering College  
Mallasamudram (W),  
Namakkal (T).

PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637 304.  
SANKAGIRI(TK).SALEM(DT).T.N.



**MAHENDRA ENGINEERING COLLEGE**

(An Autonomous Institution)  
(Approved by AICTE, New Delhi & Affiliated to Anna University)

## **DEPARTMENT OF CIVIL ENGINEERING**

**Mrs. Dr. K. VIDHYA**, B.E., M.E (Struct.), Ph.D., M.I.S.T.E., Cell : +91 9842022047  
**Professor & Head** e-mail : vidhyaa2047@gmail.com

Salem- Thiruchengode Highway, Mahendirapuri, Mallasamudram,  
Tiruchengode - Tamil Nadu, India.

Ref: MEC/Autonomous/2017-18/CIVIL/006

Date: 21.02.2018

To

Mr.K.Mohan

#### **Assistant Professor**

Sri Shanmuga College of Engineering and Technology

Dear sir

Sub: Mahendra Engineering College – Autonomous – BoS – sixth meeting – Pg-1

With reference to the subject cited above, We would like to invite you as Alumini for the sixth meeting of the Board of studies scheduled on 24<sup>th</sup> February 2018 at 1.00 P.M in the Board room for the revision / amendment, in the Curriculum / Syllabi of Regulations - 2017.

Hence, we request you to attend the meeting to finalize the revision / amendment, in the Syllabi (3<sup>rd</sup> and 4<sup>th</sup> Semester) and open elective of Regulations – 2017. The Examiners panel and Innovation teaching & evaluation techniques will also be discussed in this meeting.

Thanking you,

With regards

*(Dr. K. VIDHYA)*  
21/2/88

(Dr. K. VIDHYA)

May 15th 1891. -

  
PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637 304.  
SANKAGIRI(TK), SALEM(DT), T.N.



MAHENDRA ENGINEERING COLLEGE

*(An Autonomous Institution)*  
**(Approved by AICTE, New Delhi & Affiliated to Anna University)**

## DEPARTMENT OF CIVIL ENGINEERING

**Mrs. Dr. K. VIDHYA, B.E., M.E (Struct.), Ph.D., M.I.S.T.E.,** Cell : +91 9842022047  
**Professor & Head** e-mail : vidhya22047@gmail.com

Salem- Thiruchengode Highway, Mahendhirapuri, Mallasamudram,  
Tiruchengode - Tamil Nadu, India.

Ref: MEC/Autonomous/2016-17/CIVIL/005

Date: 01.02.2017

To  
Mr.K.Mohan  
Assistant Professor  
Sri Shanmugha College of Engineering and Technology

Dear sir

Sub: Mahendra Engineering College – Autonomous –BoS – Fifth meeting – BoS

With reference to the subject cited above, We would like to invite you as Alumini for the fifth meeting of the Board of studies scheduled on 04<sup>th</sup> February 2017 at 2.00 P.M in the Board room for the revision / amendment, in the Curriculum / Syllabi of Regulations -2015 & 2017.

Hence, we request you to attend the meeting to finalize the revision / amendment, in the Syllabi (5<sup>th</sup> to 8<sup>th</sup> Semester) of Regulation - 2015 and credits & frame the curriculum (1<sup>st</sup> to 8<sup>th</sup> Semester) of Regulation 2017. The Examiners panel and Innovation teaching & evaluation techniques will also be discussed in this meeting.

Thanking you,

With regards

(Dr. K. VIDHYA) 12/17

Head of the Department,  
Chairman of the Board of  
Liberals, and Vice-Chairman of  
the Constitutional Committee.

  
PRINCIPAL,  
SRI SHANMUGHAM COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM. MORUR-637304.  
SANKAGIRI(TK). SALEM(DT). T.N.



**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY**

[Approved by AICTE, Affiliated to Anna University and Accredited by NAAC & NBA (CSE, ECE & MECH)]

Pullipalayam, Morur (Post), Sankari (Tk), Salem (Dt) – 637 304

**Website: [www.shanmugha.edu.in](http://www.shanmugha.edu.in) Contact Number: 04283-262901**

# **Setting of question papers for UG/PG programs**



**OFFICE OF THE CONTROLLER OF EXAMINATIONS**

Ref. ESEC/COE/2018-19/EVEN/Regular/UG-B.E./CSE/QPS/02

Date: 19.09.2018

To

Dr. Janaki  
 Associate Professor  
 Department of Mathematics,  
 Sri Shanmuga College Of Engineering and Technology

Dear Sir / Madam,

Sub: **ESEC-End Semester Examinations – Odd Semester 2018 – 19 – Appointment of Question Paper Setter – Regarding.**

I am, by direction, to inform that you have been appointed as a Question Paper Setter for the Nov/Dec 2018 examinations for our Institution for the course mentioned below.

Programme & branch	B.E./ CSE	
Duration	3 Hrs.	Max. Marks : 100
Course Code & Name	MA8351-Discrete Mathematics MA8551-Algebra and Number Theory	
No. of question paper to be set	2	
Last date for receipt of question paper	26.09.2018	

Please mail your acceptance on or before 21.09.2018 to [coe@esec.ac.in](mailto:coe@esec.ac.in)

Please send the soft copy of the question paper (Password Protected), scanned claim form, confidentiality certificate, and Material to be supplied on or before 24.09.2018 to [coe@esec.ac.in](mailto:coe@esec.ac.in).

In case any one of your relatives is appearing for the above examination, you are requested to decline the offer of examiner ship immediately. The remuneration is as follows:

- Setting question paper (Soft copy) : Rs. 1000/-

Thanking you,

Yours faithfully,

PRINCIPAL,  
 SRI SHANMUGHA COLLEGE OF  
 ENGINEERING & TECHNOLOGY,  
 FULL PALAYAM, MORUR-637304.

(Dr.R.Muthukumar)  
 Controller of Examinations

Enclosures:

1. Syllabus for the course	SANKAGIRI(TK), SALEM(DT), T.N.	2. Question Paper format
3. Claim form		4. Confidentiality Certificate
5. Guidelines for question paper setter		6. Revised Blooms Taxonomy action Verbs
7. Material to be Supplied to the Students During Examination		



OFFICE OF THE CONTROLLER OF EXAMINATIONS

GUIDELINES FOR QUESTION PAPER SETTERS (2013 & 2017 Regulation)

1. The pattern of the question paper for B.E./B.Tech. Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. Section C questions can have subdivisions (not exceeding two).

Section	No. of Questions	Marks per question	Total Marks
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

2. The pattern of the question paper for Engineering Graphics is as follows:

Duration – 3 Hours, Maximum Marks – 100 Marks, questions shall be distributed amongst **ALL** units in the syllabus.

Section	No. of Questions	Size	Marks per Question	Total Marks
-	5 (Either / or)	Drawings	20	100

3. The pattern of the question paper for M.E./MCA/MBA Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. **Section C** questions can have subdivisions (not exceeding two).

<b>Section</b>	<b>No. of Questions</b>	<b>Marks per question</b>	<b>Total Marks</b>
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

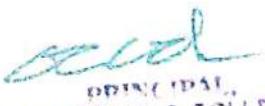
4. Follow the pattern and the template of sample question paper.
  5. Bloom's taxonomical verbs may be used instead of how, what, when, where etc. 40% of the questions could test the candidate on Remembering, Understanding and the remaining 60% on Application, Analysis and Creation also if possible on Evaluation.
  6. Clearly state the policy on permission of CODE BOOKS, data books, calculators, need for graph sheets etc. in the question paper itself.
  7. Submit images and symbols in jpeg format and embed them in the question paper.
  8. Type the question paper in the prescribed format (Typed in A4 size paper, font – Times New Roman, font size -12)

*Oscar*  
PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637 304.  
E-mail: [oscar@shsmugha.edu.in](mailto:oscar@shsmugha.edu.in)

9. Remuneration for question paper setting is Rs.1000/- per Question Paper of 3 hours duration
10. Specific care should be taken while allotting the distribution of the marks for each subdivision and the marks should be clearly indicated.
11. In case of your relatives is appearing for the above examinations, you shall decline the offer and inform to the COE office immediately.
12. **Procedure for preparation and dispatch of Question Paper:**
  - a. Read all the guidelines before the commencement of question paper setting.
  - b. Kindly go through the following attachments carefully and set the question paper prescribed in your appointment order.
    1. Appointment Order
    2. Syllabus copy
    3. QP Template
    4. Guidelines for QP setting
    5. QP setting claim form
  - c. On completion, please protect the question paper with passwords.
  - d. Fill the Claim Form, confidentiality certificate, and Material to be supplied , put your signature and scan it as a PDF file.
  - e. Zip the PDF file and Question Paper and name the file as Course Code indicated in the appointment order.
  - f. Email the zipped file to: [coe@esec.ac.in](mailto:coe@esec.ac.in)
  - g. Email the password (of the question paper ) separately to [dcoe@esec.ac.in](mailto:dcoe@esec.ac.in)
13. The Question paper setters are requested to keep their appointments strictly confidential.
14. The Remuneration for Question paper setting will be disbursed to your account as per the details given in the claim form. Please provide the correct details for prompt credit of remuneration to your account.
15. You are requested to ensure that the questions are within the syllabus and have no missing data, diagram etc.

Note:

1. Examiners are requested to type the Question paper as per the Template.
2. For clarification if any, please call mobile no: 9944121107; Landline no: 04294-232705 during working hours.

  
DR. PRINCE PAL  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
TIRUCHIRAPPALAYAM - 620009  
TAMIL NADU, INDIA

  
CONTROLLER OF EXAMINATIONS



**OFFICE OF THE CONTROLLER OF EXAMINATIONS**

Ref. ESEC/COE/2018-19/EVEN/Regular/PG-M.E./CSE/QPS/04

Date: 19.09.2018

To

Dr.K.Meenambika  
 Assistant Professor  
 Department of Mathematics,  
 Sri Shanmuga College Of Engineering and Technology

Dear Sir / Madam,

Sub: **ESEC-End Semester Examinations – Odd Semester 2018 – 19 –  
 Appointment of Question Paper Setter – Regarding.**

I am, by direction, to inform that you have been appointed as a Question Paper Setter for the Nov/Dec 2018 examinations for our Institution for the course mentioned below.

Programme & branch	M.E./ CSE	
Duration	3 Hrs.	Max. Marks : 100
Course Code & Name	CS6702-Graph Theory and Applications MA5152-Applied Mathematics for Electronics Engineers	
No. of question paper to be set	2	
Last date for receipt of question paper	26.09.2018	

Please mail your acceptance on or before 21.09.2018 to [coe@esec.ac.in](mailto:coe@esec.ac.in)

Please send the soft copy of the question paper (Password Protected), scanned claim form, confidentiality certificate, and Material to be supplied on or before 24.09.2018 to [coe@esec.ac.in](mailto:coe@esec.ac.in).

In case any one of your relatives is appearing for the above examination, you are requested to decline the offer of examiner ship immediately. The remuneration is as follows:

- Setting question paper (Soft copy) : Rs. 1000/-

Thanking you,

Yours faithfully,

(Dr.R.Muthukumar)  
 Controller of Examinations

Enclosures:

1. Syllabus for the course	2. Question Paper format
3. Claim form	4. Confidentiality Certificate
5. Guidelines for question paper setter	6. Revised Blooms Taxonomy action Verbs
7. Material to be Supplied to the Students During Examination	



**OFFICE OF THE CONTROLLER OF EXAMINATIONS**

**GUIDELINES FOR QUESTION PAPER SETTERS (2013 & 2017 Regulation)**

1. The pattern of the question paper for B.E./B.Tech. Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. Section C questions can have subdivisions (not exceeding two).

Section	No. of Questions	Marks per question	Total Marks
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

2. The pattern of the question paper for Engineering Graphics is as follows:

Duration – 3 Hours, Maximum Marks – 100 Marks, questions shall be distributed amongst ALL units in the syllabus.

Section	No. of Questions	Size	Marks per Question	Total Marks
-	5 (Either / or)	Drawings	20	100

3. The pattern of the question paper for M.E./MCA/MBA Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. Section C questions can have subdivisions (not exceeding two).

Section	No. of Questions	Marks per question	Total Marks
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

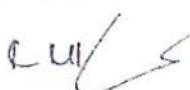
4. Follow the pattern and the template of sample question paper.
5. Bloom's taxonomical verbs may be used instead of how, what, when, where etc. 40% of the questions could test the candidate on Remembering, Understanding and the remaining 60% on Application, Analysis and Creation also if possible on Evaluation.
6. Clearly state the policy on permission of CODE BOOKS, data books, calculators, need for graph sheets etc. in the question paper itself.
7. Submit images and symbols in jpeg format and embed them in the question paper.
8. Type the question paper in the prescribed format (Typed in A4 size paper, font – Times New Roman, font size -12)

PRINCIPAL,  
 SRI SHANMUGHA COLLEGE OF  
 ENGINEERING & TECHNOLOGY,  
 PULLIPALAYAM, MORUR-637 304,  
 SANKAGIRI(TK), SALEM(DT), T.N.

9. Remuneration for question paper setting is Rs.1000/- per Question Paper of 3 hours duration
10. Specific care should be taken while allotting the distribution of the marks for each subdivision and the marks should be clearly indicated.
11. In case of your relatives is appearing for the above examinations, you shall decline the offer and inform to the COE office immediately.
12. **Procedure for preparation and dispatch of Question Paper:**
  - a. Read all the guidelines before the commencement of question paper setting.
  - b. Kindly go through the following attachments carefully and set the question paper prescribed in your appointment order.
    1. Appointment Order
    2. Syllabus copy
    3. QP Template
    4. Guidelines for QP setting
    5. QP setting claim form
  - c. On completion, please protect the question paper with passwords.
  - d. Fill the Claim Form, confidentiality certificate, and Material to be supplied, put your signature and scan it as a PDF file.
  - e. Zip the PDF file and Question Paper and name the file as Course Code indicated in the appointment order.
  - f. Email the zipped file to: [coe@esec.ac.in](mailto:coe@esec.ac.in)
  - g. Email the password (of the question paper) separately to [dcoe@esec.ac.in](mailto:dcoe@esec.ac.in)
13. The Question paper setters are requested to keep their appointments strictly confidential.
14. The Remuneration for Question paper setting will be disbursed to your account as per the details given in the claim form. Please provide the correct details for prompt credit of remuneration to your account.
15. You are requested to ensure that the questions are within the syllabus and have no missing data, diagram etc.

Note:

1. Examiners are requested to type the Question paper as per the Template.
2. For clarification if any, please call mobile no: 9944121107; Landline no: 04294-232705 during working hours.

  
CONTROLLER OF EXAMINATIONS

  
PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304.  
SANKAGIRI(TK), SALEM(DT), T.N.



# MAHENDRA ENGINEERING COLLEGE

(Autonomous)

Mahendirapuri, Mallasamudram, Namakkal - 637403

## Office of the Controller of Examinations

Lr. No :24

Date : 11.06.2018

To

Dr.T.R.Chinnusamy

Associate Professor

Department of Mechanical Engineering

Sri Shanmuga College of Engineering and Technology

Dear Sir/ Madam,

Sub: UG / PG Autonomous Examinations - Appointment of Question Paper Setter - Reg.

\*\*\*\*\*

You have been appointed as Question Paper Setter for the End Semester Examinations to be held in Nov. Dec'-2018. The following are the details of the programme, Course code & Title of the question paper(s) to be set.

Course Code	Course Title	No. of Question paper(s) to be set
ME8594	Dynamics of Machines	2

Bloom's taxonomy should be taken as reference for setting the question paper(s). A brief write up on Bloom's taxonomy is enclosed for your reference.

A copy of the syllabus, question paper template and claim form are herewith enclosed. Soft copy of the question paper(s) can be sent through e-mail:

A hard copy of the filled - in claim form should be sent through courier/ Speed post; the claim form should reach us within five days from the date of dispatch of the question paper(s).

Last day for receipt of the question paper(s) is «Date\_of\_submission». You may decline the offer if your close blood relative(s) is (are) currently studying at MEC and intimate the same to the CoE office immediately.

We solicit your kind co-operation for successful conduct of the examinations.

With regards

Controller of Examinations

PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304,  
SANKAGIRI(TK), SALEM(DT), T.N.

### **INSTRUCTIONS TO THE QUESTION PAPER SETTERS**

1. The question paper setters are requested to keep their appointment strictly **confidential**.
2. The question paper should be prepared using **Bloom's taxonomy verbs** and it should be in the **prescribed template**.
3. **Soft copy of the question paper(s) can be sent through e-mail**
4. Subject code and title must be clearly given in the question paper.
5. Particulars regarding **Data books, Tables, Charts, etc., to be supplied**, must be clearly mentioned in the question paper(s). Sketches/ Drawings if any should be drawn legible.
6. Utmost care should be taken to prepare Question paper for improving the quality of Examination systems.
7. **The Question paper should constitute at least 40 % application / other higher levels of Bloom's taxonomy for UG courses and at least 60 % for PG courses.**
8. Please mention the required details in the given claim form carefully in order to avoid payment delay.
9. You are requested to send the hardcopy of the claim form within 10 days from the date of question paper softcopy sent by E-mail.
10. For further information and clarifications, feel free to contact the CoE office.



PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR - 637 304,  
SANKAGIRI(T), SALEM(MT), T.N.



**Controller of Examinations**



**MAHENDRA ENGINEERING COLLEGE**  
(Autonomous)  
**Mahendhirapuri, Mallasamudram, Namakkal – 637403**  
**Office of the Controller of Examinations**

Lr. No : 22

Date : 11.06.2018

To

**Dr.N.Sundharamoorthy**  
**Professor and Head**  
**Department of Mechanical Engineering**  
**Sri Shanmuga College of Engineering and Technology**

Dear Sir/ Madam,

Sub: UG / PG Autonomous Examinations – Appointment of Question Paper Setter – Reg.

\*\*\*\*\*

You have been appointed as Question Paper Setter for the End Semester Examinations to be held in Nov. Dec.-2018. The following are the details of the programme, Course code & Title of the question paper(s) to be set.

Course Code	Course Title	No. of Question paper(s) to be set
ME8391	Engineering Thermodynamics	2

Bloom's taxonomy should be taken as reference for setting the question paper(s). A brief write up on Bloom's taxonomy is enclosed for your reference.

A copy of the syllabus, question paper template and claim form are herewith enclosed. Soft copy of the question paper(s) can be sent through e-mail:

A hard copy of the filled – in claim form should be sent through courier/ Speed post; the claim form should reach us within five days from the date of dispatch of the question paper(s).

Last day for receipt of the question paper(s) is «Date\_of\_submission». You may decline the offer if your close blood relative(s) is (are) currently studying at MEC and intimate the same to the CoE office immediately.

We solicit your kind co-operation for successful conduct of the examinations.

With regards

  
Controller of Examinations

  
PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUP-637304,  
SANKAGIRI(TK), SALEM(DT), T.N.

### **INSTRUCTIONS TO THE QUESTION PAPER SETTERS**

1. The question paper setters are requested to keep their appointment strictly **confidential**.
2. The question paper should be prepared using **Bloom's taxonomy verbs** and it should be in the **prescribed template**.
3. Soft copy of the question paper(s) can be sent through e-mail
4. Subject code and title must be clearly given in the question paper.
5. Particulars regarding **Data books, Tables, Charts, etc., to be supplied**, must be clearly mentioned in the question paper(s). Sketches/ Drawings if any should be drawn legible.
6. Utmost care should be taken to prepare Question paper for improving the quality of Examination systems.
7. The Question paper should constitute at least 40 % application / other higher levels of Bloom's taxonomy for UG courses and at least 60 % for PG courses.
8. Please mention the required details in the given claim form carefully in order to avoid payment delay.
9. You are requested to send the hardcopy of the claim form within 10 days from the date of question paper softcopy sent by E-mail.
10. For further information and clarifications, feel free to contact the CoE office.



PRINCIPAL,  
SRI SHANMUCHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLELAIYAM, MORUPETTAI 504,  
SANHAGIRI(TK), SALEM(MD), T.N.



**Controller of Examinations**



**OFFICE OF THE CONTROLLER OF EXAMINATIONS**

Ref. ESEC/COE/2017-18/ODD/Regular/UG-B.E./MECH/QPS/04

Date: 25.09.2017

To

T.Aasaithambi  
 Associate Professor  
 Department of Mathematics,  
 Sri Shanmuga College Of Engineering and Technology

Dear Sir / Madam,

Sub: **ESEC-End Semester Examinations – Odd Semester 2017 – 18 – Appointment of Question Paper Setter – Regarding.**

I am, by direction, to inform that you have been appointed as a Question Paper Setter for the Nov/Dec 2017 examinations for our Institution for the course mentioned below.

Programme & branch	B.E. / MECH	
Duration	3 Hrs.	Max. Marks : 100
Course Code & Name	MA8353-Transforms and Partial Differential Equations	
No. of question paper to be set	2	
Last date for receipt of question paper	30.09.2017	

Please mail your acceptance on or before 27.09.2017 to [coe@esec.ac.in](mailto:coe@esec.ac.in)

Please send the soft copy of the question paper (Password Protected), scanned claim form, confidentiality certificate, and Material to be supplied on or before 29.09.2017 to [coe@esec.ac.in](mailto:coe@esec.ac.in).

In case any one of your relatives is appearing for the above examination, you are requested to decline the offer of examiner ship immediately. The remuneration is as follows:

- Setting question paper (Soft copy) : Rs. 1000/-

Thanking you,

Yours faithfully,

(Dr.R.Muthukumar)  
 Controller of Examinations

Enclosures:

1. Syllabus for the course	2. Question Paper format
3. Claim form	4. Confidentiality Certificate
5. Guidelines for question paper setter	6. Revised Blooms Taxonomy action Verbs
7. Material to be Supplied to the Students During Examination	



## ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University)

PERUNDURAI, ERODE - 638 057

College : 04294 - 232701, 02 & 03

Fax : 04294 - 232705

E-mail : coe@esec.ac.in

### OFFICE OF THE CONTROLLER OF EXAMINATIONS

#### GUIDELINES FOR QUESTION PAPER SETTERS (2013 & 2017 Regulation)

- The pattern of the question paper for B.E./B.Tech. Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. Section C questions can have subdivisions (not exceeding two).

Section	No. of Questions	Marks per question	Total Marks
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

- The pattern of the question paper for Engineering Graphics is as follows:

Duration – 3 Hours, Maximum Marks – 100 Marks, questions shall be distributed amongst ALL units in the syllabus.

Section	No. of Questions	Size	Marks per Question	Total Marks
-	5 (Either / or)	Drawings	20	100

- The pattern of the question paper for M.E./MCA/MBA Programmes is as follows:

Duration – 3 Hours, Maximum Marks – 100, Section A and B questions shall be distributed equally amongst all units in the syllabus. Section C question shall be from any portion of the syllabus. Section C questions can have subdivisions (not exceeding two).

Section	No. of Questions	Marks per question	Total Marks
A	10	2	20
B	5 (Either / or)	13	65
C	1 (Either / or)	15	15

- Follow the pattern and the template of sample question paper.
- Bloom's taxonomical verbs may be used instead of how, what, when, where etc. 40% of the questions could test the candidate on Remembering, Understanding and the remaining 60% on Application, Analysis and Creation also if possible on Evaluation.
- Clearly state the policy on permission of CODE BOOKS, data books, calculators, need for graph sheets etc. in the question paper itself.
- Submit images and symbols in jpeg format and embed them in the question paper.
- Type the question paper in the prescribed format (Typed in A4 size paper, font – Times New Roman, font size -12)

**PRINCIPAL,**  
**SRI SHANMUGA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**TUTTALAYAM, MURSHIDPUR-637 304,**  
**SANKAGIRI HILL, SALEM DISTT., T.N.**

9. Remuneration for question paper setting is Rs.1000/- per Question Paper of 3 hours duration
10. Specific care should be taken while allotting the distribution of the marks for each subdivision and the marks should be clearly indicated.
11. In case of your relatives is appearing for the above examinations, you shall decline the offer and inform to the COE office immediately.
12. **Procedure for preparation and dispatch of Question Paper:**
  - a. Read all the guidelines before the commencement of question paper setting.
  - b. Kindly go through the following attachments carefully and set the question paper prescribed in your appointment order.
    1. Appointment Order
    2. Syllabus copy
    3. QP Template
    4. Guidelines for QP setting
    5. QP setting claim form
  - c. On completion, please protect the question paper with passwords.
  - d. Fill the Claim Form, confidentiality certificate, and Material to be supplied , put your signature and scan it as a PDF file.
  - e. Zip the PDF file and Question Paper and **name the file as Course Code** indicated in the appointment order.
  - f. Email the zipped file to: [coe@esec.ac.in](mailto:coe@esec.ac.in)
  - g. Email the password (of the question paper ) separately to [dcoe@esec.ac.in](mailto:dcoe@esec.ac.in)
13. The Question paper setters are requested to keep their appointments strictly confidential.
14. The Remuneration for Question paper setting will be disbursed to your account as per the details given in the claim form. Please provide the correct details for prompt credit of remuneration to your account.
15. You are requested to ensure that the questions are within the syllabus and have no missing data, diagram etc.

Note:

1. Examiners are requested to type the Question paper as per the Template.
2. For clarification if any, please call mobile no: 9944121107; Landline no: 04294-232705 during working hours.

*occd*  
PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
ANNA MURUGESWARAPURAM,  
TIRUNELVELI - 627 412

*Luis*  
CONTROLLER OF EXAMINATIONS



**MAHENDRA ENGINEERING COLLEGE**  
(Autonomous)  
**Mahendhirapuri, Mallasamudram, Namakkal – 637403**  
**Office of the Controller of Examinations**

Lr. No : 15

Date : 26.06.2017

To

**Dr.T.R.Chinnusamy**  
Associate Professor  
Department of Mechanical Engineering  
Sri Shanmuga College of Engineering and Technology

Dear Sir / Madam,

Sub: UG / PG Autonomous Examinations – Appointment of Question Paper Setter – Reg.

\*\*\*\*\*

You have been appointed as Question Paper Setter for the End Semester Examinations to be held in Nov. Dec.'-2017 .The following are the details of the programme, Course code & Title of the question paper(s) to be set.

Course Code	Course Title	No. of Question paper(s) to be set
ME6503	Design of Machine Elements	2

Bloom's taxonomy should be taken as reference for setting the question paper(s). A brief write up on Bloom's taxonomy is enclosed for your reference.

A copy of the syllabus, question paper template and claim form are herewith enclosed. Soft copy of the question paper(s) can be sent through e-mail:

A hard copy of the filled – in claim form should be sent through courier/ Speed post; the claim form should reach us within five days from the date of dispatch of the question paper(s).

Last day for receipt of the question paper(s) is «Date\_of\_submission». You may decline the offer if your close blood relative(s) is (are) currently studying at MEC and intimate the same to the CoE office immediately.

We solicit your kind co-operation for successful conduct of the examinations.

With regards

Controller of Examinations

PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304.  
SANKAGIRI(TK), SALEM(DT), T.N.

### **INSTRUCTIONS TO THE QUESTION PAPER SETTERS**

1. The question paper setters are requested to keep their appointment strictly **confidential**.
2. The question paper should be prepared using **Bloom's taxonomy verbs** and it should be in the prescribed template.
3. **Soft copy of the question paper(s) can be sent through e-mail**
4. Subject code and title must be clearly given in the question paper.
5. Particulars regarding **Data books, Tables, Charts, etc., to be supplied**, must be clearly mentioned in the question paper(s). Sketches/ Drawings if any should be drawn legible.
6. Utmost care should be taken to prepare Question paper for improving the quality of Examination systems.
7. The Question paper should constitute at least 40 % application / other higher levels of Bloom's taxonomy for UG courses and at least 60 % for PG courses.
8. Please mention the required details in the given claim form carefully in order to avoid payment delay.
9. You are requested to send the hardcopy of the claim form within 10 days from the date of question paper softcopy sent by E-mail.
10. For further information and clarifications, feel free to contact the CoE office.

*ocel*  
PRINT NAME  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLALAYAM, MADURAI-627308  
RANKAGAMETTA, SALEMUDI, T.N.

*Darshan*  
**Controller of Examinations**



**MAHENDRA ENGINEERING COLLEGE**  
(Autonomous)  
**Mahendhirapuri, Mallasamudram, Namakkal – 637403**  
**Office of the Controller of Examinations**

Lr. No : 07

Date : 26.06.2017

To

**Dr.P.Sengottuvel**  
**Professor**  
**Department of Mechanical Engineering**  
**Sri Shanmuga College of Engineering and Technology**

Dear Sir/ Madam,

Sub: UG / PG Autonomous Examinations - Appointment of Question Paper Setter – Reg.

\*\*\*\*\*

You have been appointed as Question Paper Setter for the End Semester Examinations to be held in Nov. Dec.-2017. The following are the details of the programme, Course code & Title of the question paper(s) to be set.

Course Code	Course Title	No. of Question paper(s) to be set
ME6703	Computer Integrated Manufacturing Systems	02

Bloom's taxonomy should be taken as reference for setting the question paper(s). A brief write up on Bloom's taxonomy is enclosed for your reference.

A copy of the syllabus, question paper template and claim form are herewith enclosed. Soft copy of the question paper(s) can be sent through e-mail:

A hard copy of the filled – in claim form should be sent through courier/ Speed post; the claim form should reach us within **five days** from the date of dispatch of the question paper(s).

**Last day for receipt of the question paper(s) is «Date\_of\_submission\_».** You may decline the offer if your close blood relative(s) is (are) currently studying at MEC and intimate the same to the CoE office immediately.

We solicit your kind co-operation for successful conduct of the examinations.

With regards

Controller of Examinations

PRINCIPAL,  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304,  
SANKAGIRI, SALEM(DT), T.N.

### **INSTRUCTIONS TO THE QUESTION PAPER SETTERS**

1. The question paper setters are requested to keep their appointment strictly **confidential**.
2. The question paper should be prepared using **Bloom's taxonomy verbs** and it should be in the prescribed template.
3. Soft copy of the question paper(s) can be sent through e-mail
4. Subject code and title must be clearly given in the question paper.
5. Particulars regarding Data books, Tables, Charts, etc., to be supplied, must be clearly mentioned in the question paper(s). Sketches/ Drawings if any should be drawn legible.
6. Utmost care should be taken to prepare Question paper for improving the quality of Examination systems.
7. The Question paper should constitute at least 40 % application / other higher levels of Bloom's taxonomy for UG courses and at least 60 % for PG courses.
8. Please mention the required details in the given claim form carefully in order to avoid payment delay.
9. You are requested to send the hardcopy of the claim form within 10 days from the date of question paper softcopy sent by E-mail.
10. For further information and clarifications, feel free to contact the CoE office.

*OZICK*  
PRINT DATE  
SRI SHANMUGA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, TIRUCHIRAPPALAYAM - 637304,  
SANKAGIRI(TK), SALEM(DT), T.N.

*[Signature]*  
Controller of Examinations



**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY**

[Approved by AICTE, Affiliated to Anna University and Accredited by NAAC & NBA (CSE, ECE & MECH)]

Pullipalayam, Morur (Post), Sankari (Tk), Salem (Dt) – 637 304

**Website: [www.shanmugha.edu.in](http://www.shanmugha.edu.in) Contact Number: 04283-262901**

# **Design and Development of Curriculum for Add on/ certificate/ Diploma Courses**

From

T.Yamuna Devi,  
Assistant Professor,  
Department of Electronics and Communication Engineering,  
Sri Shanmugha College of Engineering and Technology,  
Pullipalayam,  
Sankari.

To

The Head of the Department,  
Sri Shanmugha College of Engineering and Technology,  
Pullipalayam,  
Sankari.

Respected Sir/Madam,

**Sub:Permission for conducting Certificate courses – Reg.**

We are planning to conduct Certificate Course on Embedded System using Arduino for II B.E Electronics and Communication Engineering as an additional knowledge and career development between 07.01.2019 to 12.01.2019. In this regard, we kindly request you to provide us permission and allow us to conduct the classes in the Department of Electronics and Communication Engineering on the proposed date.

**Venue: Electronics Circuits Laboratory-Main Building**

Thanking you,

Place:Sankari

Date:26.12.2018

Approved by

Sincerely,

  
(T.Yamuna Devi, AP/ECE)



**PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304,  
SANKAGIRI(TK).SALEM(DT).T.N.**

From

Dr.Kumar T Raja Mani,  
Adjunct Faculty,  
Department of Electronics and Communication Engineering,  
Sri Shanmuga College of Engineering and Technology,  
Pullipalayam,  
Sankari.

To

The Head of the Department,  
Sri Shanmuga College of Engineering and Technology,  
Pullipalayam,  
Sankari.

Respected Sir/Madam,

**Sub: Permission for conducting Certificate courses – Reg.**

We are planning to conduct Certificate Course on Embedded C Programming for III B.E Electronics and Communication Engineering as an additional knowledge and career development between 07.01.2019 to 12.01.2019. In this regard, we kindly request you to provide us permission and allow us to conduct the classes in the Department of Electronics and Communication Engineering on the proposed date.

**Venue: Embedded System Laboratory-Main Building**

Thanking you,

Place:Sankari

Date:27.12.2018

Approved by

Sincerely,  
  
(Dr.Kumar T Raja Mani,AP/ECE)

  
**PRINCIPAL,**  
**SRI SHANMUGHA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM. MORUR-637 304.**  
**SANKAGIRI(TK).SALEM(DT).T.N.**

**From**

B.Maruthi Sankar,  
Assistant Professor,  
Department of Electronics and Communication Engineering,  
Sri Shanmuga College of Engineering and Technology,  
Pullipalayam,  
Sankari.

**To**

The Head of the Department,  
Sri Shanmuga College of Engineering and Technology,  
Pullipalayam,  
Sankari.

Respected Sir/Madam,

**Sub:Permission for conducting Certificate courses – Reg.**

We are planning to conduct Certificate Course on MATLAB for IV B.E Electronics and Communication Engineering as an additional knowledge and career development between 07.01.2019 to 12.01.2019. In this regard, we kindly request you to provide us permission and allow us to conduct the classes in the Department of Electronics and Communication Engineering on the proposed date.

**Venue: DSP Laboratory-Main Building**

Thanking you,

Place:Sankari

Date:31.12.2018

Sincerely,

  
(B.Maruthi Sankar,AP/ECE)

Approved by

  
**PRINCIPAL,**  
**SRI SHANMUGHA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM. MORUR-637304.**  
**SANKAGIRI(TK).SALEM(DT).T.N.**

From

R.Siva Kumar,

Assistant Professor,

Department of Electronics and Communication Engineering,

Sri Shanmugha College of Engineering and Technology,

Pullipalayam,

Sankari.

To

The Head of the Department,

Sri Shanmugha College of Engineering and Technology,

Pullipalayam,

Sankari.

Respected Sir/Madam,

**Sub: Permission for conducting Certificate Courses – Reg.**

We are planning to conduct Certificate Course on Robotics using AVR Studio for all year B.E Electronics and Communication Engineering as an additional knowledge and career development between 07.01.2019 to 12.01.2019. In this regard, we kindly request you to provide us permission and allow us to conduct the classes in the Department of Electronics and Communication Engineering on the proposed date.

**Venue: Robotics Laboratory-Main Building**

Thanking you,

Place:Sankari

Date:28.12.2018

Sincerely,

(R.Siva Kumar,AP/ECE)

Approved by

PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304.  
SANKAGIRI(TK), SALEM(DT), T.N.



SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Approved By AICTE, Accredited by NAAC, Certified by ISO 9001:2015  
& Affiliated to Anna University)

Tiruchengode – Sankari Mani Rd, Pullipalayam, Morur (PO), Sankari (Tk), Salem 637304.

### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

#### Robotics using AVR Studio Syllabus

Course Duration: 48 Hours

Introduction to Robotics World:Introduction to Robotics World-Different Parts of a Robot with Basic Block Diagram-Industrial Robotics.Actuators and Power Supplies:Actuators & Motor Drivers- Introduction to Motors-Electromechanical Relays & Optoisolator-Solid-state drivers: H-bridge, IC drivers-Speed Control of Motors-Power Supplies- AC Adaptor- Different Types of Batteries.Start working on the AVR Kit:Introduction to Registers and I/O Operation- Detail Description to Basic I/O Registers and its Functioning-Interfacing LEDS and Interfacing DC Equipments ( DC Motors, Relay, Buzzer etc)-Interfacing AC Equipments (Fan, Bulb and all other devices )-Introduction and Interfacing 16 x 2 Character Display- Interfacing other Digital Devices (Keyboard, Mouse etc.)- Interfacing any Analog Device (Sensor, Signal)- Design and Functioning of Simple IR Sensor

#### Course Content

S.No	Date	Topics Covered	Hours
1.	07.01.2019	Introduction to Robotics World	2
2.	07.01.2019	Different Parts of a Robot with Basic Block Diagram	2
3.	08.01.2019	Industrial Robotics	3
4.	08.01.2019	Actuators & Motor Drivers-Introduction to Motors	2
5.	08.01.2019	Electromechanical Relays & Optoisolator	3
6.	09.01.2019	Solid-state drivers: H-bridge, IC drivers	2
7.	09.01.2019	Speed Control of Motors	3
8.	09.01.2019	Power Supplies- AC Adaptor	4
9.	10.01.2019	Different Types of Batteries	3

PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304.  
SANKAGIRI(TK).SALEM(UT).INDIA

10.	10.01.2019	Introduction to Registers and I/O Operation	3
11.	10.01.2019	Detail Description to Basic I/O Registers and its Functioning	3
12.	11.01.2019	Interfacing LEDS and Interfacing DC Equipment's ( DC Motors, Relay, Buzzer etc)	3
13.	11.01.2019	Interfacing AC Equipment's (Fan, Bulb and all other devices )	3
14.	11.01.2019	Introduction and Interfacing 16 x 2 Character Display	3
15.	12.01.2019	Interfacing other Digital Devices (Keyboard, Mouse etc.)	3
16.	12.01.2019	Interfacing any Analog Device (Sensor, Signal)	2
17.	12.01.2019	Design and Functioning of Simple IR Sensor	3

PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637 001,  
SANKAGIRI(TK), SALEM(DI).

COURSE IN-CHARGE  
(R.Siva Kumar,AP/ECE)

HOD/ECE  
(Dr.P.Kalyana Sundaram)

PRINCIPAL  
(Dr..Radha Krishnan)



**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(Approved By AICTE, Accredited by NAAC, Certified by ISO 9001:2015  
& Affiliated to Anna University)

Tiruchengode – Sankari Mani Rd, Pullipalayam, Morur (PO), Sankari (Tk), Salem 637304.

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**MATLAB Syllabus**

Course Duration: 48 Hours

Signal Processing in MATLAB:Types of Signals-Classification of Signals-Systems-Graphics.Filters in MATLAB:Types of filters-Finite Impulse Response (FIR) filter-Infinite Impulse Response (IIR) filter-Implementation of FFT in MATLAB.Image Processing in MATLAB:Wavelets and Multi Resolution Analysis-Image Enhancement Techniques-Morphological Operations-Image Segmentation.Writing Functions:Creating functions-Calling functions-Setting the MATLAB path-Debugging with the MATLAB Editor-Using breakpoints-Creating and using structures.

**Course Content**

S.No	Date	Topics Covered	Hours
1.	07.01.2019	Types of Signals	2
2.	07.01.2019	Classification of Signals	2
3.	08.01.2019	Systems	3
4.	08.01.2019	Graphics	2
5.	08.01.2019	Types of filters	3
6.	09.01.2019	Finite Impulse Response (FIR) filter	2
7.	09.01.2019	Infinite Impulse Response (IIR) filter	3
8.	09.01.2019	Implementation of FFT in MATLAB	4
9.	10.01.2019	Wavelets and Multi Resolution Analysis	3
10.	10.01.2019	Image Enhancement Techniques	3
11.	10.01.2019	Morphological Operations	3
12.	11.01.2019	Image Segmentation	3
13.	11.01.2019	Creating functions	3
14.	11.01.2019	Calling functions	3
15.	12.01.2019	Setting the MATLAB path	2
16.	12.01.2019	Debugging with the MATLAB Editor	2
17.	12.01.2019	Using breakpoints	
18.	12.01.2019	Creating and using structures	

  
**PRINCIPAL,**  
**SRI SHANMUGHA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM, MORUR-637304.**  
**SANKAGIRI(TK).SALMIDTA.T.N.**

  
COURSE IN-CHARGE  
(B.Maruthi Sankar)

  
HOD/ECE  
(Dr.P.Kalyana Sundharam)

  
PRINCIPAL  
(Dr.R.Radha Krishnan)



**SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**(Approved By AICTE, Accredited by NAAC, Certified by ISO 9001:2015**  
**& Affiliated to Anna University)**

*Tiruchengode – Sankari Mani Rd, Pullipalayam, Morur (PO), Sankari (Tk), Salem 637304.*

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Embedded C Programming Syllabus**

Course Duration: 48 Hours

Advanced Embedded Programming:Introduction to C programming-Advanced C programming-Function calls, passing / returning values-Advance Pointers and Arrays-Hashing and Bitwise operation-Data structure-Dynamic memory allocation, Introduction to OS services-Process , memory & I/O management-Socket programming-Creating a linked list, linked stack and queue, double and circular linked list, sparse matrices, binary tree-Interrupt handling in C-Code optimization issues in Embedded C.Embedded C application development:Writing LCD drives-Writing LED drivers-Writing device driver for serial port communication-I2C interfacing with serial EEPROM using special ISRs-Stopwatch program on Embedded board-Calculator program on Embedded board

**Course Content**

<b>S.No</b>	<b>Date</b>	<b>Topics Covered</b>	<b>Hours</b>
1.	07.01.2019	Introduction to C programming	2
2.	07.01.2019	Advanced C programming	2
3.	08.01.2019	Function calls, passing / returning values	3
4.	08.01.2019	Advance Pointers and Arrays	2
5.	08.01.2019	Hashing and Bitwise operation	3
6.	09.01.2019	Data structure	2
7.	09.01.2019	Dynamic memory allocation, Introduction to OS services	3
8.	09.01.2019	Process , memory & I/O management	4
9.	10.01.2019	Socket programming	3
10.	10.01.2019	Creating a linked list, linked stack and queue, double and circular linked list, sparse matrices, binary tree	3

  
**PRINCIPAL,**  
**SRI SHANMUGHA COLLEGE OF**  
**ENGINEERING & TECHNOLOGY,**  
**PULLIPALAYAM. MORUR-637304.**  
**SANKAGIRI(TK).SALEM(DT).T.N.**

11.	10.01.2019	Interrupt handling in C	3
12.	11.01.2019	Code optimization issues in Embedded C	3
13.	11.01.2019	Writing LCD drives	3
14.	11.01.2019	Writing LED drivers	3
15.	12.01.2019	Writing device driver for serial port communication	2
16.	12.01.2019	I2C interfacing with serial EEPROM using special ISRs	2
17.	12.01.2019	Stopwatch program on Embedded board	2
18.	12.01.2019	Calculator program on Embedded board	2

PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM. MORUR-637 304.  
SANKAGIRI(TK).SALEM(DT).T.N.

COURSE IN-CHARGE  
(Dr.Kumar T Raja Mani)

HOD/ECE  
(Dr.P.Kalyana Sundharam)

PRINCIPAL  
(Dr.R.Radha Krishnan)



SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Approved By AICTE, Accredited by NAAC, Certified by ISO 9001:2015  
& Affiliated to Anna University)

Tiruchengode – Sankari Mani Rd, Pullipalayam, Morur (PO), Sankari (Tk), Salem 637304.

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### Embedded System using Arduino Syllabus

Course Duration: 48 hours

Embedded Systems Introduction-Different Microcontroller Architectures (CISC, RISC, ARISC)-Internal Resources & Hardware Chips in Details-History of AVR Microcontrollers and Features-Memory Architectures (RAM/ROM).Introduction to ARDUINO-ARDUINO History and Family-Programming in Embedded-C-.Concepts of C language.General Hardware Interfacing:LED's-Switches-Seven Segment Display-Multi Segment Displays-Relays (AC Appliance Control)-LCD-Buzzer-IR Sensors-Other Digital Sensors

### Course Content

S.No	Date	Topics Covered	Hours
1.	07.01.2019	Embedded Systems Introduction	2
2.	07.01.2019	Different Microcontroller Architectures (CISC, RISC, ARISC)	6
3.	08.01.2019	Internal Resources & Hardware Chips in Details	3
4.	08.01.2019	History of AVR Microcontrollers and Features	2
5.	08.01.2019	Memory Architectures (RAM/ROM)	3
6.	09.01.2019	Introduction to ARDUINO	2
7.	09.01.2019	ARDUINO History and Family	2
8.	09.01.2019	Programming in Embedded-C	4
9.	10.01.2019	Concepts of C language	2
10.	10.01.2019	LED's	3
11.	10.01.2019	Switches	3
12.	11.01.2019	Seven Segment Display	3
13.	11.01.2019	Multi Segment Displays	3
14.	11.01.2019	Relays (AC Appliance Control)	2
15.	12.01.2019	LCD	2
16.	12.01.2019	Buzzer	
17.	12.01.2019	IR Sensors	
18.	12.01.2019	Other Digital Sensors	

*[Signature]*  
PRINCIPAL,  
SRI SHANMUGHA COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
PULLIPALAYAM, MORUR-637304.  
SANKAGIRI(TK)-SALEM(DT).T.N.  
*[Signature]* 2

*[Signature]*  
COURSE IN-CHARGE  
(T.Yamuna Devi)

*[Signature]*  
HOD/ECE  
(Dr.P.Kalyana Sundharam)

*[Signature]*  
PRINCIPAL  
(Dr.R.Radha Krishnan)