



STUDENTS FEEDBACK ON CURRICULUM

This questionnaire is to collect information relating to your satisfaction towards curriculum for creating conducive atmosphere for teaching and learning. The information provided by you will be kept confidential and will be used as important feedback for quality improvement of the program of studies/institution.

Academic Year	2016-17
Branch	ISE
Name of the Student	Sonu Gupta
USN	15415DS12

Rate the curriculum/syllabus on the following Points

SL NO	Statements	Excellent	Very good	Good	Average	Below Average
		5	4	3	2	1
1	How do you rate the syllabus of the courses that you have studied in relation to the competencies expected out of the course?	✓				
2	How do you rate the allocation of the credits to the courses?		✓			
3	Relevance for implementation in projects	✓				
4	How do you rate the electives offered in relation to the technological advancements?		✓			
5	How do you rate the evaluation scheme designed for each of the course?		✓			
6	How do you rate the percentage of courses having LAB components?	✓				
7	Curriculum is sufficient to make you analyze the engineering problems and its suitable solution		✓			

Suggestions: Real time examples and applications should be added in few subjects.

Sonu Gupta
Signature

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

FACULTY FEEDBACK ON CURRICULUM

This questionnaire is intended to collect information relating to your satisfaction towards the curriculum, teaching, learning and evaluation. The information provided by you will be kept confidential and will be used as important feedback for quality improvement of the program of studies/institution.

Academic Year	2016-17
Branch	ISE
Name of the Faculty	Ravichandran M
Designation	Asst. Professor
Subject/Sub. code	Micro processors

Rate the curriculum/syllabus on the following Points

SL NO	Statements	Excellent	Very good	Good	Average	Below Average
		5	4	3	2	1
1	Do you feel that the curriculum is defined in a way to clarify your teaching goals and what you expect your students to learn?			✓		
2	Is the curriculum sufficient to bridge the gap between industry standards /current global scenarios and academics?			✓		
3	Is the timely coverage of curriculum possible in the mentioned number of hours?				✓	
4	Sufficient reference material and books are available for the topics mentioned in the curriculum?			✓		
5	The evaluation methods mentioned in the curriculum are sufficient for providing proper assessment?			✓		
6	Curriculum is suitable to the course			✓		
7	The curriculum/course of this subject increased my knowledge and perspective in the subject area		✓			

Suggestions: Introducing ARM processor / Rasberry-PI
Will be advantageous

Signature Ravi


Principal

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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SRI SRINIVASA EDUCATIONAL & CHARITABLE TRUST (R)
Sapthagiri College of Engineering
(Affiliated to Visvesvaraya Technological University, Belgaum & Approved by AICTE, New Delhi)

FACULTY FEEDBACK ON CURRICULUM

This questionnaire is intended to collect information relating to your satisfaction towards the curriculum, teaching, learning and evaluation. The information provided by you will be kept confidential and will be used as important feedback for quality improvement of the program of studies/institution.

Academic Year	2016-17
Branch	ISE
Name of the Faculty	Divyaashree G
Designation	Assistant Professor
Subject/Sub. code	MP/15CS44, DR/10IS661

Rate the curriculum/syllabus on the following Points

SL NO	Statements	Excellent	Very good	Good	Average	Below Average
		5	4	3	2	1
1	Do you feel that the curriculum is defined in a way to clarify your teaching goals and what you expect your students to learn?	✓				
2	Is the curriculum sufficient to bridge the gap between industry standards /current global scenarios and academics?	✓				
3	Is the timely coverage of curriculum possible in the mentioned number of hours?	✓				
4	Sufficient reference material and books are available for the topics mentioned in the curriculum?	✓				
5	The evaluation methods mentioned in the curriculum are sufficient for providing proper assessment?	✓				
6	Curriculum is suitable to the course	✓				
7	The curriculum/course of this subject increased my knowledge and perspective in the subject area	✓				

Suggestions: Advanced Concepts in microprocessors should be introduced.

Signature

Principal

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ALUMNI FEEDBACK ON CURRICULUM

We are glad that you have spent valuable years pursuing courses of your choice at SCE. We shall be thankful if you can spare some of your valuable time to fill up this feedback form and give us valuable suggestions for further improvement of the College. Your valuable inputs will be of great use to improve the quality of our academic programs and enhance the credibility of our Institution. Rate the adequacy of following as they were during your tenure as a student

Year of Passing	2016
Branch	TSE
Name	Sundara B. G.
Status : Work/Study	Work
Phone no	9844956390

Rate the curriculum/syllabus on the following Points

SL NO	Statements	Excellent 5	Very good 4	Good 3	Average 2	Below Average 1
1	When you compare yourself with other counterparts from other Institution, you feel that you got most of all the facilities which is not available in other Institution	✓				
2	Learning value (in terms of skills, concepts, knowledge, analytical abilities or broadening perspectives)	✓				
3	Curriculum is sufficient to make you analyze the engineering problems and its suitable solution	✓				
4	How do you rate the learning experience in terms of their relevance to the real life application	✓				
5	Ability to work in teams		✓			
6	Ability to link theory to practice	✓				
7	How do you rate the course/curriculum content that you have learnt in relation to your current job	✓				
8	Compatibility with industry standards	✓				

Suggestions: Some extra technical training required.
Industry visit should be conducted for students.

Signature

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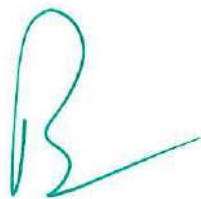
Department of Information science and Engineering

CIRCULAR

Date: 20/5/2017

This is to inform that there will be a meeting of Academic committee members for analyzing curriculum syllabus of academic year 2017-18. The meeting is scheduled on 22/5/2017 at 10.30 am in HOD's chamber.

Sl No.	Faculty Name	Designation	Signature
1	Prof. Prerana Chaithra	HOD	
2	Prof. Malathi K P	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	



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HOD

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Department of Information science and Engineering

Date: 22/5/2017



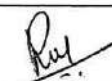


MINUTES OF MEETING

With reference to circular dated on 20/5/2017, the academic committee member assembled in HODs chamber for addressing the following agenda.

Agenda:

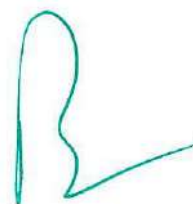
- Reviewing the department curriculum syllabus of Academic Year 2017-18
- Reviewing the feedback analysis of various stake holders of the academic year 2016-17
- Identifying the gaps in the syllabus
- Action to be taken for the identified gaps.

During the meeting the following members were present

Sl No.	Faculty Name	Designation	Signature
1	Prof. Prerana Chaithra	HOD	
2	Prof. Malathi K P	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	

The following points were discussed in the meeting

1. The committee members reviewed the analysis of department curriculum syllabus.
2. The committee members discussed about the feedback of department curriculum syllabus.
3. The members identified the gaps based on the analysis.
4. The following actions were taken for the gaps that are identified.



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SL.NO	SEM	Course Title	Identified Gap
1	IV-A/B	Microprocessors	There was no fundamental details of embedded programming

Action Taken:

Based on the feedback obtained from Students, Faculties and Alumni analysis of syllabus by department academic committee members, it was decided to conduct certification course on “Embedded Systems with ARM Processors” to overcome the gaps identified in the curriculum/syllabus.



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Department of Information science and Engineering

Date: 19/06/2017

To

IQAC Coordinator
Sapthagiri College of Engineering
Bengaluru-560 057

Respected sir,

Subject: Requisition for conduction of certification course and approval from Governing Council.

With respect to the Academic committee members meeting held for analyzing department curriculum/syllabus for the academic year 2017-18. The committee members identified few gaps after analyzing the syllabus and feedback from the stakeholders. To bridge the gaps identified in the curriculum, the committee members decided to conduct a certification course on "Embedded Systems with ARM Processors" from 22-Jan-2018 to 27-Jan-2018 for the academic year 2017-18. So, I request you to forward and get the approval from the governing council for the same.

Thanking You,

Enclosure: Budget Proposal.

*Forwarded for the
HOD approval & ratification*

Rec
HOD

Department of
Information Science & Engg
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BANGALORE - 560 057.

[Signature]
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Department of Information science and Engineering

Date: 19/06/2017

To,

THE IQAC Coordinator
Sapthagiri College of Engineering
Bangalore - 560057.

Respected Sir,

Subject: Budget Proposal for conduction of certification program on "Embedded Systems with ARM Processors"

The Budget Proposal for conduction a certification program on "Embedded Systems with ARM Processors" from 22-Jan-2018 to 27-Jan-2018 is hereby enclosed for your kind consideration and approval.

The details of the Recurring budget are given as follows:-

Recurring Amount:

Sl. No.	Description	Quantity	Amount in Rs.
1	Bouquet	1	100
2	Certificates	Students	1500
3	Others		1000
Total			2600

*Forwarded for the G.C
approval & satisfaction*
[Signature]

[Signature]
HOD

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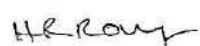




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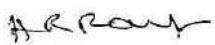
Date: 11-01-2018

CIRCULAR

This is to inform that the following Academic Committee members are requested to attend the meeting on 12/01/2018 at 10.30AM in the HODs chamber to decide the syllabus and the lesson plan for the certification program on "Embedded Systems with ARM Processors".

Sl No.	Faculty Name	Designation	Signature
1	Dr. H. R. Ranganatha	HOD	
2	Prof. Prerana Chaithra	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	


Principal
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HOD
Dr H.R. Ranganatha
Prof. & H.O.D
Dept. of Information Science & Engg.
Sapthagiri College of Engineering
14/5 Chikkasandra, Hesaraghatta Main Road
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Department of Information science and Engineering

Date: 11-01-2018

To,

Mr. Kumaraswamy,
Addition Technologies,
Bengaluru

Respected Sir,

Subject: Invitation as a "Guest Speaker" in certification program and to attend meeting to discuss about the certification program


Department of Information Science & Engineering have planned to conduct a certification program titled "Embedded Systems with ARM Processors" for ISE students from 22-Jan-2018 to 27-Jan-2018. In this connection, we are privileged to invite you as a guest speaker on the above mentioned topic.

Thanking you for your kind acceptance to our request on phone. We request you to attend the meeting to discuss about the conduction of certification course on 12/01/2018 at 10.30AM. We look forward to welcome you at SCE.

Thanking you


Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

Yours faithfully


HOD
Dr. H.R. Ranganatha
Prof. & H.O.D
Dept. of Information Science & Engg.
Sapthagiri College of Engineering
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Department of Information science and Engineering

Minutes of Meeting

A meeting was conducted on 12-Jan-2018 in ISE HoD's Chamber to discuss and approve the following about the 5 days Certification Course for ISE Students.

- **Course Title :** Embedded Systems with ARM Processors
- **Resource Personnel :** Mr. Kumaraswamy, Aiddition Technologies, Bengaluru
- **Course Duration & Date:** 5 Days from 22-Jan-2018 to 27-Jan-2018
- **Syllabus :**
 - ARM Introduction
 - ARM GIPO Introduction
 - ARM PLL
 - Interfacing 16X2 LCD
 - ARM Timer
 - ARM Interrupt
 - Embedded Systems
 - Industry Perspective on Embedded Systems

Lesson Plan of the certification program

Dates	SESSION 1 (9.00am-10.30am)	SESSION 2 (11.00am-12.30pm)	SESSION 3 Hands-on Session (1.00pm-4.00pm)	No. of Hours
22-1-2018 Monday	Part 1: ARM Introduction <ul style="list-style-type: none"> • Features of ARM • ARM Processor Family • Explanation of the features • ARM Processors 	Part 2: ARM GIPO Introduction <ul style="list-style-type: none"> • What is LPC2148 and GPIO • How to upload the program to LPC2148 Microcontroller • Blinking LEDs 	Hands on Session	6
23-1-2018 Tuesday	Part 3: ARM PLL <ul style="list-style-type: none"> • Symbols • Formulae • Standard Values (when PLL is used) • Setting up PLL • Procedure for determining PLL Settings • Peripheral Clock (PCLK) 	Part 4: Interfacing 16X2 LCD <ul style="list-style-type: none"> • Interfacing 16 X 2 LCD with LPC2148 ARM 7 Microcontroller • Pin Configuration • Interfacing LCD Module with LPC2148 • Initializing the LCD Module • Program for Interfacing LCD with LPC2148 • Interfacing 16X2 LCD Images 	Hands on Session	6

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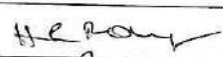
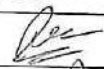




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24-1-2018 Wednesday	Part 5: ARM Timer Timers / Counters in LPC2148 • Registers Associated with Timers in LPC2148	Part 5: ARM Timer Cont'd... • Configuring Timers • Blinking LEDs using LPC2148 and Timers	Hands on Session	6
25-1-2018 Thursday	Part 6: ARM Interrupt • Interrupt Related Registers in LPC2148	Part 6: ARM Interrupt Cont'd... • Configuring Interrupts in LPC2148 • Example program using Interrupts in LPC2148	Hands on Session	6
27-1-2018 Saturday	Embedded Systems	Industry Perspective on Embedded Systems	Hands on Session	6
Total				30

The following members were present in the meeting and the syllabus and lesson plan for the certification program has been decided.

Sl No.	Faculty Name	Designation	Signature
1	Dr. H. R Ranganatha	HOD	
2	Prof. Prerana Chaithra	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	
6	Mr. Kumaraswamy	Guest Speaker	

Principal

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H.R. Ranganatha
HOD

Dr H.R. Ranganatha
Prof. & H.O.D

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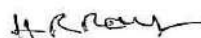
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Department of Information science and Engineering

NOTICE

As a part of programming skill development Department of Information Science and Engineering is conducting Five days Certification Course on “**Embedded Systems with ARM Processors**” from 22-Jan-2018 to 27-Jan-2018.

All the 2nd year students have to attend compulsorily.



HOD

Dr H.R. Ranganatha

Prof. & H.O.D

Dept. of Information Science & Engg.
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DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

5 days Certification Program on "Embedded Systems with ARM

Processors"

Students Enrollment

Sl.No.	USN	Student Name
1	ISG16IS001	AADITHYA AMAN
2	ISG16IS002	ABHIJIT KUMAR
3	ISG16IS003	AISHWARYA N
4	ISG16IS004	AISHWARYA G
5	ISG16IS005	AKSHAY H A
6	ISG16IS008	ANANYA
7	ISG16IS009	ANKIT NIRMALKAR
8	ISG16IS010	ANKIT SINHA
9	ISG16IS011	ANKITA KHAN
10	ISG16IS012	ANNAPOORNA M S
11	ISG16IS013	ANUJ RANJAN KUMAR
12	ISG16IS014	ARJUN CS
13	ISG16IS015	ARUN C
14	ISG16IS016	ASHISH KUMAR
15	ISG16IS017	ASHISH NAMBIAR
16	ISG16IS019	BADAL SHARMA
17	ISG16IS020	BRIJESH KUMAR
18	ISG16IS021	CHAITRA G BHAT
19	ISG16IS022	CHAITRA N
20	ISG16IS023	CHANDANA M
21	ISG16IS024	CHETAN KUMAR
22	ISG16IS025	DHANUSH K
23	ISG16IS026	G S NUTHAN
24	ISG16IS028	HARSHA V
25	ISG16IS029	JAYA THAKUR
26	ISG16IS031	JOSHNA P N
27	ISG16IS033	KARTHIK C KATTI
28	ISG16IS034	KARTHIK M M
29	ISG16IS035	KAVYA VASUDEV
30	ISG16IS036	KEERTHI S

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Sl.No.	USN	Student Name
31	ISG16IS037	KUMAR AYUSH
32	ISG16IS039	LAKSHMAN SHARMA
33	ISG16IS040	LAVANYA S
34	ISG16IS041	LIKHITA B
35	ISG16IS042	M KUMAR SAURAV
36	ISG16IS043	MANAN V PATEL
37	ISG16IS045	MANJUSHREE T
38	ISG16IS046	MAYANK KUMAR V
39	ISG16IS047	MD AKRAM KAZMI
40	ISG16IS048	M RACHANA
41	ISG16IS049	MENAN DEEP
42	ISG16IS050	MILINDA B
43	ISG16IS051	MOHIT KUMAR
44	ISG16IS052	N NIVEDHA
45	ISG16IS053	NEHA H
46	ISG16IS054	NEHA P PATIL
47	ISG16IS055	NEHA RANI
48	ISG16IS056	NIDHI J
49	ISG16IS058	NIKHIL TOMAR
50	ISG16IS059	NIRANJAN HEGDE
51	ISG16IS060	NISHANTH KUMAR
52	ISG16IS062	OMKAR R
53	ISG16IS064	PAVITHRA P
54	ISG16IS065	PAYAL GUPTA
55	ISG16IS404	SANTHOSH C
56	ISG16IS133	NAGAMMA
57	ISG16IS132	SAMPRITHA K G
58	ISG15IS053	KRUTHIKA Y S
59	ISG15IS071	NAVYASHREE

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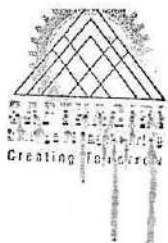
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Sl No.	USN	Student Name
1	ISG15IS025	ASHWIN M
2	ISG15IS027	AVINABH
3	ISG15IS079	PRATHIK KUMAR
4	ISG15IS091	REHAN INAMDAR
5	ISG16IS066	PRABHAT PUNDIR
6	ISG16IS068	PRAGATHI V
7	ISG16IS069	Y S PRANAV
8	ISG16IS070	PRASHANTH C
9	ISG16IS072	PRIYANKA B K
10	ISG16IS073	PUSHPAVATHI H S
11	ISG16IS074	RAGHAVENDRA L A
12	ISG16IS075	RAHUL KUMAR
13	ISG16IS076	RAHUL RAJU N
14	ISG16IS077	RAMESH V
15	ISG16IS079	RISHEE RAJ
16	ISG16IS080	RITWICK
17	ISG16IS081	ROBIN SINGH C
18	ISG16IS082	RUPAM PAUL
19	ISG16IS083	S GAYATHRI
20	ISG16IS084	S SURIYS RASHMI
21	ISG16IS085	SACHIN DOLTA
22	ISG16IS086	SACHIN R
23	ISG16IS087	SAHANA C
24	ISG16IS088	SAKSHAM BALLYAN
25	ISG16IS089	SAKSHAM PHADKE
26	ISG16IS090	SANATH KUMAR BHAT
27	ISG16IS091	SANATH S
28	ISG16IS092	SANCHITA HEODE
29	ISG16IS093	SAURA M GAJBHIYE
30	ISG16IS094	SAURAV DUBEY
31	ISG16IS095	SEEMA R
32	ISG16IS096	SHAHEEN M
33	ISG16IS097	SHALINI K V
34	ISG16IS098	SHASHANK M BAIRY
35	ISG16IS100	SHEETHAL S

Principal

Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057



Sapthagiri College of Engineering


(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru - 560057

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

36	ISG16IS101	SHIVAM PANDEY
37	ISG16IS102	SHRAVAN KUMAR
38	ISG16IS103	SHREE RAKSHA R
39	ISG16IS104	SHREYA G
40	ISG16IS105	SHRUTI V BHAT
41	ISG16IS106	SINCHANA S BABU
42	ISG16IS107	SINDHU V.S
43	ISG16IS108	SOHAN VEMU
44	ISG16IS109	SOWKYA P K
45	ISG16IS110	SUKRUTHA M
46	ISG16IS111	SUNIL KUMAR K
47	ISG16IS112	SWASTIK HEGDE
48	ISG16IS113	TARUN KUMAR K M
49	ISG16IS115	USHA R
50	ISG16IS116	USHA S L
51	ISG16IS118	VARSHA G RAJ
52	ISG16IS119	VARSHA V
53	ISG16IS120	VARSHITHA J
54	ISG16IS123	VISHWARAJ VEER
55	ISG16IS124	VISHWAS VALAHATTI
56	ISG16IS126	VYOM MISHRA
57	ISG16IS127	ROHIT RAJUR
58	ISG16IS128	SREENATH
59	ISG16IS129	ABHISHEK HOLLA
60	ISG16IS130	ARSHAD MAKARANI
61	ISG16IS131	KARISHMA JAISWAL


COORDINATOR


Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057


HOD

Dr H.R. Ranganatha
Prof. & H.O.D
Dept. of Information Science & Engg.
Sapthagiri College of Engineering
14/5 Chikkasandra, Hesaraghatta Main Road,
BENGALURU-560 057.

5 days Certification Course on "Embedded Systems With ARM Processors"

Attendance

Sl No.	USN	Student Name	22/1/18		23/1/18		24/1/18		25/1/18		27/1/18		Test
			MS	AS	MS	AS	MS	AS	MS	AS	MS	AS	
1	ISG16IS001	AADITHYA AMAN	1	2	3	3	4	5	6	7	8	9	9
2	ISG16IS002	ABHIJIT KUMAR	1	2	3	4	5	6	7	8	9	10	11
3	ISG16IS003	AISHWARYA N	0	1	2	3	4	5	6	7	8	9	10
4	ISG16IS004	AISHWARYA G	1	2	3	4	5	6	7	8	9	10	10
5	ISG16IS005	AKSHAY H A	1	2	3	4	5	6	7	8	9	10	10
6	ISG16IS008	ANANYA	1	2	3	4	5	6	7	8	9	10	11
7	ISG16IS009	ANKIT NIRMALKAR	1	1	2	3	4	5	6	7	8	9	10
8	ISG16IS010	ANKIT SINHA	1	2	3	4	4	5	6	7	8	9	10
9	ISG16IS011	ANKITA KHAN	1	2	3	4	5	5	6	7	8	9	10
10	ISG16IS012	ANNAPOORNA M S	1	2	3	4	5	6	7	8	9	10	11
11	ISG16IS013	ANUS RANJAN KUMAR	1	2	3	4	5	6	7	8	9	10	11
12	ISG16IS014	ARJUN CS	1	2	3	4	5	5	6	7	8	9	10
13	ISG16IS015	ARUN C	1	2	3	4	5	6	7	8	9	10	11
14	ISG16IS016	ASHISH KUMAR	1	2	3	4	5	6	7	8	9	10	11
15	ISG16IS017	ASHISH NAMBIAR	1	1	2	3	4	5	6	7	8	9	10
16	ISG16IS019	BADAL SHARMA	1	2	3	4	5	6	7	8	9	10	11
17	ISG16IS020	BRIJESH KUMAR	1	2	3	4	5	6	7	8	9	10	11
18	ISG16IS021	CHAITRA G BHAT	0	1	2	3	4	5	6	7	8	9	10
19	ISG16IS022	CHAITRA N	1	2	3	4	5	6	7	8	9	10	11
20	ISG16IS023	CHANDANA M	1	1	2	3	4	5	6	7	8	9	10
21	ISG16IS024	CHETAN KUMAR	0	1	2	3	4	5	5	6	7	8	9
22	ISG16IS025	DHANUSH K	1	2	3	3	4	5	6	7	8	9	10
23	ISG16IS026	G S NUTHAN	1	2	3	3	4	5	6	7	8	9	10
24	ISG16IS028	HARSHA V	1	1	2	3	4	5	6	7	8	9	10
25	ISG16IS029	JAYA THAKUR	1	2	3	4	5	6	7	8	9	10	11
26	ISG16IS031	JOSHNA P N	1	1	2	3	4	5	6	7	8	9	10
27	ISG16IS033	KARTHIK C KATTI	1	2	3	4	5	6	7	8	9	10	10
28	ISG16IS034	KARTHIK M M	1	2	3	3	4	5	6	7	8	9	10
29	ISG16IS035	KAVYA VASUDEV	1	2	3	4	5	6	7	8	9	10	11
30	ISG16IS036	KEERTHI S	1	2	3	4	5	6	7	8	9	10	11

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Department of Information science and Engineering

Sl No.	USN	Student Name	22/1/18		23/1/18		24/1/18		25/1/18		27/1/18		
			MS	AS	MS	AS	MS	AS	MS	AS	MS	AS	
31	ISG16IS037	KUMAR AYUSH	1	2	3	4	4	5	6	7	8	9	10
32	ISG16IS039	LAKSHMAN SHARMA	1	2	3	4	5	6	7	8	9	10	11
33	ISG16IS040	LAVANYA S	1	2	2	3	4	5	6	7	8	9	10
34	ISG16IS041	LIKHITA B	0	1	2	3	4	5	6	7	8	9	10
35	ISG16IS042	M KUMAR SAURAV	1	2	3	4	4	5	6	7	8	9	10
36	ISG16IS043	MANAN V PATEL	1	2	3	4	5	6	7	8	9	10	11
37	ISG16IS045	MANJUSHREE T	1	2	2	3	4	5	6	7	8	9	10
38	ISG16IS046	MAYANK KUMAR V	1	2	3	4	5	6	7	8	9	10	11
39	ISG16IS047	MD AKRAM KAZMI	0	1	2	3	4	5	6	7	8	9	10
40	ISG16IS048	M RACHANA	1	2	3	4	5	6	7	8	9	10	11
41	ISG16IS049	MENAN DEEP	1	2	3	3	4	5	6	7	8	9	10
42	ISG16IS050	MILINDA B	1	2	3	4	5	6	7	8	9	10	11
43	ISG16IS051	MOHIT KUMAR	1	2	3	4	5	6	7	8	9	10	11
44	ISG16IS052	N NIVEDHA	1	2	3	4	5	6	6	7	8	9	10
45	ISG16IS053	NEHA H	1	2	3	4	5	6	7	8	9	9	10
46	ISG16IS054	NEHA P PATIL	1	2	3	4	5	6	7	8	9	10	11
47	ISG16IS055	NEHA RANI	0	1	2	3	4	5	6	7	8	9	10
48	ISG16IS056	NIDHI J	1	2	3	4	5	6	7	8	9	10	11
49	ISG16IS058	NIKHIL TOMAR	1	2	3	4	5	6	7	8	9	10	11
50	ISG16IS059	NIRANJAN HEGDE	1	2	3	4	5	6	7	8	9	10	11
51	ISG16IS060	NISHANTH KUMAR	1	1	2	3	4	5	6	7	8	9	10
52	ISG16IS062	OMKAR R	1	2	3	4	5	6	7	8	9	10	11
53	ISG16IS064	PAVITHRA P	1	2	3	4	5	6	7	8	9	10	11
54	ISG16IS065	PAYAL GUPTA	1	2	3	3	4	5	6	7	8	9	10
55	ISG16IS404	SANTHOSH C	1	2	2	4	5	5	6	7	8	9	10
56	ISG16IS133	NAGAMMA	1	2	3	4	5	6	7	8	9	10	11
57	ISG16IS132	SAMPRITHA K G	1	2	3	3	4	5	6	7	8	9	10
58	ISG15IS053	KRUTHIKA Y S	1	2	3	4	5	6	7	8	9	10	11
59	ISG15IS071	NAVYASHREE	1	2	3	3	4	5	6	7	8	9	10

Sangeeta
Co-ordinator

[Signature]
Principal

Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

H.R. Ranganatha
Dr H.R. Ranganatha
Prof. & H.O.D

Dept. of Information Science & Engg.
Sapthagiri College of Engineering
14/5 Chikkasandra, Hesaraghatta Main Road
BENGALURU-560 057

5 days Certification Course on "Embedded systems with Arm processors"

Attendance

Sl No.	USN	Student Name	22-1-18		23-1-18		24-1-18		25-1-18		27-1-18		Test
			MS	AS	MS	AS	MS	AS	MS	AS	MS	AS	
1	ISG15IS025	ASHWIN M	0	1	2	3	4	5	6	7	8	9	10
2	ISG15IS027	AVINABH	1	2	3	3	4	5	6	7	8	9	10
3	ISG15IS079	PRATHIK KUMAR	1	2	3	4	5	5	6	7	8	9	10
4	ISG15IS091	REHAN INAMDAR	1	2	3	4	5	6	6	7	8	9	10
5	ISG16IS066	PRABHAT PUNDIR	0	1	2	3	4	5	6	7	8	9	10
6	ISG16IS068	PRAGATHI V	0	1	2	3	4	5	6	7	8	9	10
	ISG16IS069	Y S PRANAV	1	2	3	4	5	6	7	8	9	10	11
8	ISG16IS070	PRASHANTH C	1	2	3	4	5	6	7	8	8	9	10
9	ISG16IS072	PREYANKA B K	1	2	3	4	5	6	7	8	9	9	10
10	ISG16IS073	PUSHPAYATHI E S	1	2	3	4	5	6	7	8	9	9	10
11	ISG16IS074	RAGHAVENDRA L A	1	2	3	4	5	6	7	8	9	10	11
12	ISG16IS075	RAHUL KUMAR	1	2	3	4	5	6	7	8	9	10	11
13	ISG16IS076	RAHUL RAJU N	1	1	2	3	4	5	6	7	8	9	10
14	ISG16IS077	RAMESH V	1	2	3	4	5	6	7	8	9	10	11
15	ISG16IS079	RISHEE RAJ	1	2	3	4	5	6	7	8	9	10	11
16	ISG16IS080	RITWICK	1	2	3	4	5	6	7	8	9	10	11
17	ISG16IS081	ROBIN SINGH C	1	2	3	4	5	6	7	8	9	10	11
18	ISG16IS082	RUPAM PAUL	1	2	3	4	5	6	7	8	9	10	11
19	ISG16IS083	S GAYATHRI	1	2	2	3	4	5	6	7	8	9	10
	ISG16IS084	S SURIYS KASHMI	1	2	3	4	5	6	7	8	9	10	11
21	ISG16IS085	SACHIN DOLTA	1	2	3	4	5	6	7	8	9	10	11
22	ISG16IS086	SACHIN R	1	2	3	4	5	6	7	8	9	10	11
23	ISG16IS087	SAHANA C	1	2	3	4	5	6	7	8	9	10	11
24	ISG16IS088	SAKSHAM BALLYAN	1	1	2	3	4	5	6	7	8	9	10
25	ISG16IS089	SAKSHAM PHADKE	1	2	3	4	5	6	7	8	9	10	11
26	ISG16IS090	SANATH KUMAR BHAT	1	2	3	4	5	6	7	8	9	10	11
27	ISG16IS091	SANATH S	1	2	3	4	5	6	7	8	9	10	11
28	ISG16IS092	SANCHITA HEGDE	0	1	2	3	4	5	6	7	8	9	10
29	ISG16IS093	SAURA M GAJBHIYE	1	2	3	3	4	5	6	7	8	9	10
30	ISG16IS094	SAURAV DUBEY	1	2	3	4	5	6	7	8	9	10	4

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31	ISG16IS095	SEEMA R	1	2	3	4	5	6	6	7	8	9	10
32	ISG16IS096	SHAHEEN M	1	2	3	4	5	6	7	8	9	10	11
33	ISG16IS097	SHALINI K V	1	1	2	3	4	5	6	7	8	9	10
34	ISG16IS098	SHASHANK M BAIRY	1	2	3	4	5	6	7	8	9	10	11
35	ISG16IS100	SHEETHAL S	1	2	3	4	5	6	6	7	8	9	10
36	ISG16IS101	SHIVAM PANDEY	1	2	3	4	5	6	7	8	9	10	11
37	ISG16IS102	SHRAVAN KUMAR	1	2	3	4	5	6	7	8	9	10	11
38	ISG16IS103	SHREE RAKSHA R	1	1	2	3	4	5	6	7	8	9	10
39	ISG16IS104	SHREYA G	1	2	3	4	5	6	7	8	9	10	11
40	ISG16IS105	SHRUTI V BHAT	1	2	3	3	4	5	6	7	8	9	10
41	ISG16IS106	SINCHANA S BABU	1	2	3	4	5	6	7	8	9	10	11
42	ISG16IS107	SINDHU V.S	1	2	3	4	5	6	7	8	9	10	11
43	ISG16IS108	SOHAN VEMU	1	2	3	4	5	6	7	8	9	10	11
44	ISG16IS109	SOWKYA P K	1	2	3	4	5	6	7	8	9	10	11
45	ISG16IS110	SUKRUTHA M	1	2	3	4	5	6	7	8	8	9	10
46	ISG16IS111	SUNIL KUMAR K	1	2	3	4	5	6	7	8	9	10	11
47	ISG16IS112	SWASTIK NESDE	1	2	3	4	5	6	7	8	9	10	11
48	ISG16IS113	TARUN KUMAR K M	1	2	3	4	5	6	7	8	9	10	11
49	ISG16IS115	USHA R	1	2	3	4	5	6	7	8	9	10	11
50	ISG16IS116	USHA S L	1	2	3	3	4	5	6	7	8	9	10
51	ISG16IS118	VARSHA G RAJ	1	2	3	4	4	5	6	7	8	9	10
52	ISG16IS119	VARSHA V	1	2	3	4	5	6	7	8	9	10	11
53	ISG16IS120	VARSHITHA J	1	2	3	4	4	5	6	7	8	9	10
54	ISG16IS123	VISHWARAJ VEER	1	2	3	4	5	6	7	8	9	10	11
55	ISG16IS124	VISHWAS VALAHATTI	1	2	3	4	5	6	7	8	9	10	11
56	ISG16IS126	VYOM MISHRA	1	2	3	4	5	6	7	8	9	10	11
57	ISG16IS127	ROHIT RAJUR	1	2	3	4	5	6	7	8	9	10	11
58	ISG16IS128	SREENATH	1	2	2	3	4	5	6	7	8	9	10
59	ISG16IS129	ABHISHEK HOLLA	1	2	3	4	5	6	7	8	9	10	11
60	ISG16IS130	ARSHAD MAKARANI	1	2	3	4	5	6	7	8	9	10	11
61	ISG16IS131	KARISHMA JAISWAL	1	2	3	4	5	6	7	7	8	9	10

Somya
Coordinator

B
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Sapthagiri College of Engineering
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Bengaluru - 560 057

H.R.R.
Dr H.R. Ranganatha
Prof. & H.O.D

Dept. of Information Science & Engg
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BENGALURU-560 057

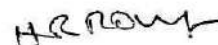
5 days Certification Course on "Embedded Systems with ARM processors"

Test Time Table

Sr. No.	DATE	DAY	TIMINGS
1	27-01-2018	Saturday	3.00 PM-4.00PM



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HOD

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BENGALURU-560 057

5 days Certification Course on "Embedded systems with ARM Processors"

Question Paper

Duration: 1hr

Maximum marks :25

Note: Question number 1-13 (1M each)

Question number 14 & 15 (6M each)

Answer all the Questions:

- 1) ARM stands for _____
 - a) Advanced Rate Machines
 - b) Advanced RISC Machines
 - c) Artificial Running Machines
 - d) Aviary Running Machines
- 2) The main importance of ARM micro-processors is providing operation with _____
 - a) Low cost and low power consumption
 - b) Higher degree of multi-tasking
 - c) Lower error or glitches
 - d) Efficient memory management
3. ARM processors where basically designed for _____
 - a) Main frame systems
 - b) Distributed systems
 - c) Mobile systems
 - d) Super computers
- 4) The address space in ARM is _____
 - a) 2^{24}
 - b) 2^{64}
 - c) 2^{16}
 - d) 2^{32}
5. The address system supported by ARM systems is/are _____
 - a) Little Endian
 - b) Big Endian
 - c) X-Little Endian
 - d) Both Little & Big Endian
6. Memory can be accessed in ARM systems by _____ instructions.
 - i) Store ii) MOVE iii) Load iv) arithmetic v) logical
 - a) i,ii,iii b) i,ii c) i,iv,v d) iii,iv,v
7. RISC stands for _____
 - a) Restricted Instruction Sequencing Computer
 - b) Restricted Instruction Sequential Compiler



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- c) Reduced Instruction Set Computer
d) Reduced Induction Set Computer
8. In the ARM, PC is implemented using ____
a) Caches
b) Heaps
c) General purpose register
d) Stack
9. The additional duplicate register used in ARM machines are called as ____
a) Copied-registers
b) Banked registers
c) EXtra registers
d) Extential registers
10. The banked registers are used for ____
a) Switching between supervisor and interrupt mode
b) Extended storing
c) Same as other general purpose registers
d) None of the mentioned
11. The addressing mode where the EA of the operand is the contents of Rn is ____
a) Pre-indexed mode
b) Pre-indexed with write back mode
c) Post-indexed mode
d) None of the mentioned
12. Each instruction in ARM machines is encoded into ____ Word.
a) 2 byte
b) 3 byte
c) 4 byte
d) 8 byte
13. All instructions in ARM are conditionally executed.
a) True
b) False
14. Write an embedded C Program for Blinking-LED.
15. Write an Embedded C program to run a stepper motor.









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Department of Information science and Engineering

Approved by Academic Committee Members & Guest Speaker

Sl No.	Faculty Name	Designation	Signature
1	Dr. H. R Ranganatha	HOD	
2	Prof. Prerana Chaithra	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	
6	Mr. Kumaraswamy	Guest Speaker	



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Dr H.R. Ranganatha
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5 days Certification Course on "Embedded systems with ARM Processors"

Solutions for the Questions

Duration : 1h

Maximum marks : 25

Note: Question number 1-13 (1M each)

Question number 14 & 15 (6M each)

Answer all the Questions:

- 1) ARM stands for _____
- a) Advanced Rate Machines
 - b) Advanced RISC Machines
 - c) Artificial Running Machines
 - d) Aviary Running Machines

Ans: Option B

- 2) The main importance of ARM micro-processors is providing operation with _____
- a) Low cost and low power consumption
 - b) Higher degree of multi-tasking
 - c) Lower error or glitches
 - d) Efficient memory management

Ans: Option A

3. ARM processors where basically designed for _____
- a) Main frame systems
 - b) Distributed systems
 - c) Mobile systems
 - d) Super computers

Ans: Option C

- 4) The address space in ARM is _____
- a) 2^{24}
 - b) 2^{64}
 - c) 2^{16}
 - d) 2^{32}

Ans: Option D



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Department of Information Science and Engineering

5. The address system supported by ARM systems is/are _____

- a) Little Endian
- b) Big Endian
- c) X-Little Endian
- d) Both Little & Big Endian

Ans: Option D

6. Memory can be accessed in ARM systems by _____ instructions.

- | | | | | |
|-------------|----------|-----------|----------------|------------|
| i) Store | ii) MOVE | iii) Load | iv) arithmetic | v) logical |
| a) i,ii,iii | b) i,ii | c) i,iv,v | d) iii,iv,v | |

Ans: Option B

7. RISC stands for _____

- a) Restricted Instruction Sequencing Computer
- b) Restricted Instruction Sequential Compiler
- c) Reduced Instruction Set Computer
- d) Reduced Induction Set Computer

Ans: Option C

8. In the ARM, PC is implemented using _____

- a) Caches
- b) Heaps
- c) General purpose register
- d) Stack

Ans: Option C

9. The additional duplicate register used in ARM machines are called as _____

- a) Copied-registers
- b) Banked registers
- c) EXtra registers
- d) Extential registers

Ans: Option B

10. The banked registers are used for _____

- a) Switching between supervisor and interrupt mode
- b) Extended storing
- c) Same as other general purpose registers
- d) None of the mentioned

Ans: Option A


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11. The addressing mode where the EA of the operand is the contents of Rn is _____

- a) Pre-indexed mode
- b) Pre-indexed with write back mode
- c) Post-indexed mode
- d) None of the mentioned

Ans: Option C

12. Each instruction in ARM machines is encoded into _____ Word.

- a) 2 byte
- b) 3 byte
- c) 4 byte
- d) 8 byte

Ans: Option C

13. All instructions in ARM are conditionally executed.

- a) True
- b) False

Ans: Option A

14. Write an embedded C Program for Blinking-LED.

Ans :

```
#include<lpc214x.h>
void delay(void);
int main()
{
    unsigned int a = 0x01,i;
    PINSEL0 = 0x00000000;
    PINSEL1 = 0x00;
    IODIR0 = 0xFFFFFFFF;
    while(1)
    {
        for(i = 0 ; i < 32 ; i++)
        {
            IOSET0 = a;
            a = a << 1;
            delay();
        }
    }
}

void delay()
{
    unsigned int i,j;
    for(i = 0 ; i < 1000 ; i++)
        for (j = 0 ; j < 1500 ; j++); }
```


Principal

Department of Information science and Engineering

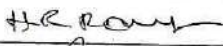





15. Write an Embedded C program to run a stepper motor.

Ans:

```
void delay() // Delay Routine
{
    int i, j;
    for(i=0; i<0xff; i++)
    for(j=0; j<0x25; j++);
}

int main()
{
    IOCDIR=0x000F0000; //Port selection
    while(1)
    {
        // Anticlock wise rotation.
        IOOPIN=0x00080000; //For Clkwise send 1,2,4,8 instead of 8,4,2,1
        delay();
        IOOPIN=0x00040000;
        delay();
        IOOPIN=0x00020000;
        delay();
        IOOPIN=0x00010000;
        delay();
    }
}
```

Approved by Academic Committee Members & Guest Speaker

Sl No.	Faculty Name	Designation	Signature
1	Dr. H. R Ranganatha	HOD	
2	Prof. Prerana Chaithra	Associate Professor	
3	Prof. Ravichandra M.	Assistant Professor	
4	Prof. Gayathri R	Assistant Professor	
5	Prof. Ramya R	Assistant Professor	
6	Mr. Kumaraswamy	Guest Speaker	

Principal

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Bengaluru - 560 057

HOD

Dr H.R. Ranganatha
Prof. & H.O.D

Dept. of Information Science & Engg.
Sapthagiri College of Engineering
14/5 Chikkasandra, Hesaraghatta Main Road
BENGALURU-560 057

5 days Certification Course on "Embedded systems with ARM Processor"

Participant Feedback

1. How was the overall organization of the Certification Course ?
a) Poor b) Satisfactory ☒ c) Good d) Excellent
2. How appropriate were the facilities provided ?
a) Poor b) Satisfactory ☒ c) Good d) Excellent
3. Opportunity to ask questions for clarification and interaction with presenters
a) Poor b) Satisfactory ☒ c) Good d) Excellent
4. Effectiveness of the Hands-on Sessions
a) Poor b) Satisfactory c) Good ☒ d) Excellent
5. Topic and contents of the Certification Course
a) Poor b) Satisfactory c) Good ☒ d) Excellent
6. How do you rate the Certification Course compared to other workshops that you have attended ?
a) Poor b) Satisfactory c) Good ☒ d) Excellent
7. Generally how was your overall experience during the Certification Course
a) Poor b) Satisfactory c) Good ☒ d) Excellent
8. Any Suggestions:

Hands on Session was useful

Student Name : Omkar . R.


Student Signature:


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7. Generally how was your overall experience during the Certification Course
a) Poor b) Satisfactory c) Good d) ☒ Excellent
8. Any Suggestions:

Course content would have been more

Student Name :

Rashid Shaema

Principal

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14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

Rashid Shaema
Student Signature:

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7. Generally how was your overall experience during the Certification Course
a) Poor b) Satisfactory ☒ c) Good d) Excellent
8. Any Suggestions:

Course was useful

Student Name :

Priyanka - BR



Principal

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Bengaluru - 560 057

 Student Signature:

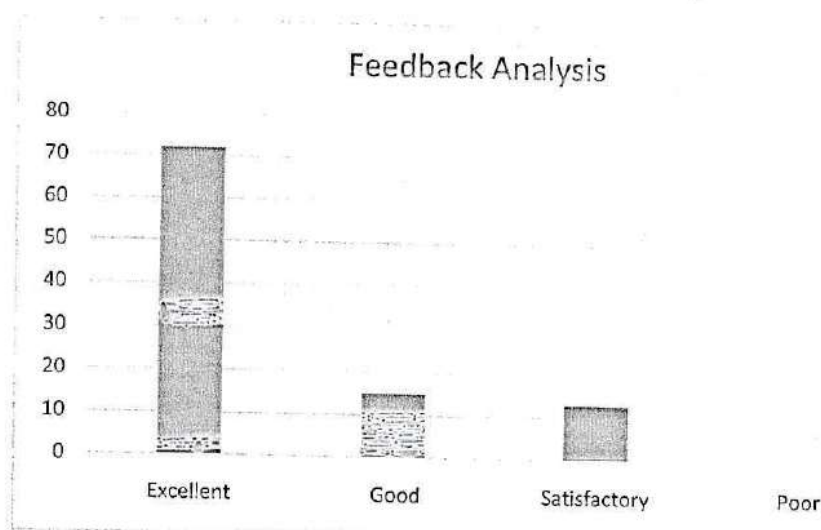
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Department of Information science and Engineering FEEDBACK ANALYSIS

Certification course: "Embedded systems with ARM processor"

No. of students	Student Feedback			
	Excellent	Good	Satisfactory	Poor
53	72	15	13	-



Action Report:

72 % of students were completely happy with the certification program and 15 % of students felt it was a good program and remaining 13 % students were satisfied with the program.

Action Taken:

The Feedback report which was collected from the students were sent to the principal and he would take necessary actions based on the comments and conduct more programs for the benefit of students.

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BENGALURU-560 057



Sapthagiri College of Engineering

Bangalore-560057

Certificate

This is to Certify that Mr./Ms. ANKITA KHAN
of INFORMATION SCIENCE AND ENGINEERING, has participated
and successfully completed Five days Certification Course on
"Embedded systems with ARM Processor" from 22 Jan,
2018 to 27 Jan, 2018 organized by the Department of Information
Science & Engineering, Sapthagiri College of Engineering.

H R Romy
HOD, Dept of ISE

J Ravi
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057



Sapthagiri College of Engineering

Bangalore-560057

Certificate

This is to Certify that Mr./Ms. _____

of _____ has participated
and successfully completed Five days Certification Course on
"Embedded Systems with ARM Processors" from 22-January-
2018 to 27-January-2018 organized by the Department of Information
Science & Engineering, Sapthagiri College of Engineering.

HOD, Dept of ISE

Principal

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Department of Information science and Engineering Certification Course Report

Department of ISE conducted Certification Course on Embedded Programming with ARM processors.

Resource Person: Mr. Kumaraswamy K, Co-founder, Addition Technologies, Bengaluru

Duration of the course : Five days from 22-Jan-2018 to 27-Jan-2018

Objective of the Course: The five day course made the students to be familiar with the major concepts in Embedded Programming using ARM processors in KEIL IDE which is a main platform for their career. Certification Course became the vital step to improve the knowledge of students

Learning style adopted by students, which eventually is developed into a skill of their forte. Through this course, an ecstatic learning background paved way to a positive learning environment in the class where active participation was seen from every end. Speaker took the onus of interacting with the students personally to navigate them for the academic transition by becoming the guides by their side

Schedule of Certification Course

Dates	SESSION 1 (9.00am-10.30am)	SESSION 2 (11.00am-12.30pm)	SESSION 3 Hands-on Session (1.00pm-4.00pm)	No. of Hours
22-1-2018 Monday	Part 1: ARM Introduction <ul style="list-style-type: none"> Features of ARM ARM Processor Family Explanation of the features ARM Processors 	Part 2: ARM GIPO Introduction <ul style="list-style-type: none"> What is LPC2148 and GPIO How to upload the program to LPC2148 Microcontroller Blinking LEDs 	Hands on Session	6
23-1-2018 Tuesday	Part 3: ARM PLL <ul style="list-style-type: none"> Symbols Formulae Standard Values (when PLL is used) Setting up PLL Procedure for determining 	Part 4: Interfacing 16X2 LCD <ul style="list-style-type: none"> Interfacing 16 X 2 LCD with LPC2148 ARM 7 Microcontroller Pin Configuration 	Hands on Session	6

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	determining PLL Settings • Peripheral Clock (PCLK)	• Interfacing LCD Module with LPC2148 • Initializing the LCD Module • Program for Interfacing LCD with LPC2148 • Interfacing 16X2 LCD Images		
24-1-2018 Wednesday	Part 5: ARM Timer Timers / Counters in LPC2148 • Registers Associated with Timers in LPC2148	Part 5: ARM Timer Cont'd... • Configuring Timers • Blinking LEDs using LPC2148 and Timers	Hands on Session	6
25-1-2018 Thursday	Part 6: ARM Interrupt • Interrupt Related Registers in LPC2148	Part 6: ARM Interrupt Cont'd... • Configuring Interrupts in LPC2148 • Example program using Interrupts in LPC2148	Hands on Session	6
27-1-2018 Saturday	Embedded Systems	Industry Perspective on Embedded Systems	Hands on Session	6
Total				30

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