Alva's Institute of Engineering & Technology



Shobhavana Campus, Mijar, Moodbidri, D.K - 574225 Phone: 08258-262725, Fax: 08258-262726

DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING

From,

Date:02-01-2018

Dr. D V Manjunatha Head of the Department E & C Engineering Alva's Institute of Engineering and Technology Moodbidri.

To,

The Prinicipal Alva's Institute of Engineering and Technology Moodbidri.

Respected Sir,

Sub: Requisition for Conducting FDP on Embedded Controller

Programming using ARM Cortex M3 from 16th Jan To 19th 2018 reg:-

With reference to the above subject, we are planning to conduct FDP on Embedded Controller Programming using ARM Cortex M3 from 16th Jan To 19th 2018.

So I kindly request you to grant the permission for conducting the FDP.

Thanking you

Your's faithfully

Dr. D V Manjunatha Head of the Department H. O. D.

Dept. Of Electronics & Communication
Alva's Institute of Eng. / Fechnology
Mijar, MOODBIDIO 574 226

Dr. Peter Fernandes
The Principal
AIET Moodbidri.

PRINCIPAL
Live's institute of Engg. & Technology,
Mijor, MOODBIDRI - 574 225, D.K.

Four Day Faculty Development Programme on "Embedded Controller Programming with

Hands on using ARM Cortex-M3

REGISTRATION FORM

Name:
Designation:
Name of the Institution:
Address:
Email:
Mobile:
Accommodation required: YES / NO
Registration Fee Payment Details:
Amount:
D.D. No.:
Bank:
Date:
Place: Signature of the Participant
SPONSORSHIP CERTIFICATE
I hereby agree to sponsor
Diese

Signature of HOD / Principal

Chief Patron:

Dr. M Mohan Alva

Chairman

Alva's Education Foundation, Moodbidri

Patron:

Sri. Vivek Alva

Managing Trustee Alva's Education Foundation, Moodbidri

Dr. Peter Fernandes

Principal, AIET, Moodbidri

Organizing Chair:

Dr. D.V. Manjunatha Sr. Professor & HOD, Dept. of ECE AIET

Dr. Dattatreya G

Sr. Professor&Dean (Planning), Dept. of ECE, AIET

Dr. Praveen J

Professor &Dean (Academics), Dept. of ECE, AIET

Prof. Tanya Mendez

Asst Professor, Dept. of ECE, AIET

Prof. Deepak Raj

Asst Professor, Dept. of ECE, AIET

Organizing Committee:

Faculty

Dept. of ECE, AIET

ResourcePerson:

Geetha.S.Nazre

Technical Manager, ARM Accredited Engineer and Professional Corporate Trainer, Bangalore

Alva's Institute of Engineering and Technology (A Unit Of Alva's Education Foundation ®, Moodbidri)
(Affilated to VTU, Belgaum, Approved by AICTE, New Delhi,
Recognized by Govt of Karnataka)
Shobhavana Campus, Mijar, Moodbidri-574225,
Mangalore (D), Karnataka **Four Day Faculty Development Programme**

"Embedded Controller Programming

Hands on using ARM Cortex-M3"



16th -19th January, 2018

> Organized by Department of

Electronics & Communication Engineering Alva's Institute of Engineering& Technology Shobhavana Campus, Mijar, Moodbidri-574225 Mangalore, D.K., Karnataka

Phone: 08258 - 262724, 262725, 262726

Alva's Institute Of Engg. & Technology

Alva's Institute of Engineering and Technology, Mijar, Moodbidri is a premier Engineering Institute of Alva's Education Foundation, established in the year 2008, located adjacent to Mangalore-Sholapur National Highway, which is 24 Kms from Mangalore International Airport. The college is recognized by All India Council for Technical Education (AlCTE), New Delhi & Affiliated to Visvesvaraya Technological University, Belagavi. The college is certified to the ISO 9001: 2008 standards. The college is ranked as one of the best Technical Institute in South Canara region. The institute offers under graduate programs in 5 branches Alva's Institute of Engineering and Technology, institute offers under graduate programs in 5 branches of Engineering – Computer Science & Engineering, Civil Engineering, Electronics & Communications Engineering, Information Science & Engineering, MechanicalEngineering, The college offers the following postgraduate programs- Master of Technology, Master of Business Administration. M Tech courses offered in Thermal Power Eng., Computer Science & Engineering, VLSI Design & Embedded Systems. Six departments at the institute has been recognized as research centers by Visvesvaraya Technological University, Belagavi. institute offers under graduate programs in 5 branches

Department of Electronics & Communication was started in the year 2008-09. Electronics and Communication, one of the widely renowned branches in the field of Engineering, have proved time and again, that they play a vital role in both the developing and well-being of our society in the fast paced human life. ECE branch is concerned with the design, development, manufacture and application of electronic devices, circuits and systems. It plays great emphasis on deep understanding of fundamental principles and state of the art knowledge about Electronic Devices and Circuits, Computer Architecture and Microprocessors. the art knowledge about Electronic Devices and Circuits, Computer Architecture and Microprocessors, VLSI and Embedded systems, Electromagnetic Field Theory, Analog and Digital Communication, Digital Signal Processing, Microwave and Broadband Communications, MEMS, Research and Development

Lab (recently sanctioned byVTU Belgaum). The Lab (recently sanctioned by IU Begaum). Indepartment has well-qualified and experienced faculty which includes Three Doctorates, Seven faculties whoare pursuing Ph.D. and remaining faculty are Post-Graduates. The Faculty members are regularly publishing technical papers in international and national journals and conferences.

Electro Systems Associates Pvt. Ltd., popularly known as ESA, was incorporated in the year 1986 by a small group of highly qualified technocrats with sound business acumen and strong technical skills. ESA is registered as a Small Scale Industry with the Govt. of Karnataka. The in-house R&D of ESA is recognized by the Dept. of Science and Technology, Govt. of INDIA.
The main objective of R&D is to develop new products and technologies to meet the demand of Indian market and develop import substitute

Scope of the FDP

This FDP "Embedded Controller Programming with Hands on using ARM Cortex-M3" is being organized for Four days to provide hands on experience with emphasis on ARM cortex M3 microcontroller platform for faculties, researchers and technologists.

Topics (As per VTU Syllabus)

- Introduction to ARM CORTEX M3
- Introduction to Keil MDKARM software
- Demonstration of various kits & Products to
- Hands on workshop with ESA KEIL MCB1768 board which includes usage of ARM KIT. Installation of Keil software, downloading & execution of software and interfacing programs.

The program is open to the faculty of engineering colleges, research scholars, working professionals of allied disciplines. The number of participants is limited to 50 on first come first serve basis.

Note: - TA/DA will not be provided.

Date and Venu

Date: 16th - 19th January, 2018

Venue: Engineering Seminar Hall Alva's Institute of Engineering and technology Shobhavana Campus, Mijar Moodbidri-574225

Registration Fee

Participants from Academic institutions.....

Rs. 1000/-

Demand draft may be sent in favor of "THE PRINCIPAL, AIET" payable at Moodbidri.

Accommodation to the outstation participants will be provided on requestand they need to bear the expenditures.

Address for Communication

Mrs. Tanya Mendez Asst. Professor Dept. of ECE AIET, Moodbidri Cell: 9663866422 Email: tanya@aiet.org.in Mr. Deepak Raj Asst. Professor Dept. of ECE AIET, Moodbidri Cell: 9591302315 deepakraj@aiet.org.in

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI Department of Electronies & Communication Engineering FOUR DAYS - FACULTY DEVELOPMENT PROGRAMME ON Embedded Controller Programming with hands on using ARM cortex - M3 January 16th to 19th, 2018 Participants

4]. 10	Name	College / Address	Phone/Email	DD Details	Accommodation Yes/No	Signature	
1	Rumana Ali MITE, Moodbidri Mahabaleshwara Bhat MITE, Moodbidri		Yumana.ali.chmogmail.com	Canada bank 24 29/19/8 No - 078642	No .	a	
2			9964958 32 0 mbh_92@yahoo.wm	canera bank did 26/11/17. No. 12/07 352905	No.	Par Hate	
	Keshavani Nadubettu	KVGCE, sullia	9449021189 Keshaveni Ognest. com	Canada bant 4+4 1/1/10 No - 3 98152	Yes	Keelin	
١	Suhandas VCET Puttur		VCET Puttur 99.23.78.110		NO	8	
,	Raghunatha	MIT kundapur	1990286589	1,000	No	ge s	
,	Varun Kumar	MIT kundapur	9739577494 Veumong.24@gmail.com		Ma	S	
,	Nafoosath	PA Mangalore	1829602486 Nafi.+p@gmail.com	topy constant	Yes	Not	
8	Sandeep SIT Mangalore		9448965401 Sudseps(13642/200.0.3	1000/-	No.	Surg	
9	Mr. Sudhakar H M	AIET Moodbidri	- Internal _		NO	97.	

	Mr. Roshan Shetty	AIET Moodbidri			
	11 Nar. Roshan Shetty	AIET Moodbidri	Internal _		
1	2 Mr. Santhosh	AIET Moodbidri	312817600 t		0
13	Ms. Deepa	AIET Moodbidri	← Internal		9
14	Mr. Yuvraj	AIET Moodbidri	9916070911		>
15	Mr. Aneesh jain	AIET Moodbidri	t.yuvalaj0907@gmail.com -	_	\$
5	Mr. Mahendra	AIET Moodbidri	Internal		
	Ms. Shreedevi	AIET Moodbidri	Internal		>
	Mr. Deepak raj	AIET Moodbidri	- Internal -		>
	Mr. Pradeep Kumar	AIET Moodbidri	9964063737 7661 Pradeep @ Gmail·Com		>
1	Ms. Tanya M	AIET Moodbidri	Soll model policy and the soll of the soll	_	pleker
1	Mr. Sachin	AIET Moodbidri	- Internal		→ >>
N	Ms. Prithvi P Shetty	AIET Moodbidri	9535734877 prithvi030@yahoo.ix	_	Shelty
~	ls. Sharanya. S. Udupa	SDIT, Kenjae, Mr.	9164258825 Qun. bant dld 9118 8hasanya uduput 20 gmail.	No.	ON.

1 "		SSE , Mukka	THOOTESOET	17-13 hanh	No.	Epola
.16	Balinageshwar	MIT, Kundapus	9538543 910	1000 -	No.	4 Jugar
17			negestione bossograil	1000]-	No.	82
18						
9						
1						

PITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI Department of Electronics & Communication Engineering PACULTY DEVELOPMENT PROGRAM On Embedded Controller Programming using ARM Cortex M3 16th An To 19th 2018

Attendance list

	/ *	f Name	College		16/01/18		17/01/18	11	801/18	19/	01/18
	\vdash	-		FN	AN	FN	AN	FN	AN	FN	AN
	1	DR. D V MANJUNATH	A AIET, Moodbids	ri /	_	-		-		_	
ŀ	2	DR. DATTATHREYA	AIET, Moodbidri	i /	~	1	-		_		-
L	3	DR.PRAVEEN. J	AIET, Moodbidri	_	1	-	1	1		_	-
4	N	AR. SHANKAR B.B	AIET, Moodbidri	/	_	1	1		_		_
5	M	R. SUDHAKARA H.M	AIET, Moodbidri	~	/	1	1				
	MI B.G	R. PARVEEZ SHARIFF	AIET, Moodbidri	-	/	-	/				
	MR	S. JYOTHI PRAMAL	AIET, Moodbidri	-	/	~	/	_	/		_
	MRS.	. SAHANA K	AIET, Moodbidri	_	1	/	/	/	/	_	
	MR. ROSHAN S		AIET, Moodbidri	~	1	1	~	/	_	/	
1	MRS.	VIJETHA .T.S	AIET, Moodbidri	1	/	/			/		_

			Embedded				ARM Cort	ек МЗ				
	16 th Jan To 19 th 2018 <u>Attendance list</u>											
	11	MR. SANTHOSHA .S	AIET, Moodbidri									
	12	MS. DEEPA N	AIET, Moodbidri		1	1		1		-		
	13	MR.YUVARAJU.T	AIET, Moodbidri		+	1	1					
	14	MR. MAHENDRA H N	AIET, Moodbidri	-	1	-	1	1		1	-	
L	15	MR. ANEESH JAIN M V	AIET, Moodbidri	1	/	1	1		1	-		
1	6	MS. KUMARI SHRUTHI	AIET, Moodbidri	1	1	-	-	_	-	-		
1	7	MRS. SHREEDEVI	AIET, Moodbidri	~	_	1	/	-	_	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
18	1	MR. DEEPAK RAJ	AIET, Moodbidri	_	/	-	_	/	_	-		
19	N	MR. SUSHANTH ANIL	AIET, Moodbidri	~	/	_	_	_				
20	N	IR. PRADEEP KUMAR K	AIET, Moodbidri	-	. ~	_	~	_	_		1/	
21	M	IRS. TANYA MENDEZ	AIET, Moodbidri	~	_	~		_	/			
22	M	R. SACHIN .K	AIET, Moodbidri	_	/	~	~	/			_	

Report of 4 day workshop on "embedded controller programming with hands on using Arm Cortex M3"

The 4 day faculty development program is organized by the Dept of Electronics and Communication, AIET from Jan16-Jan19 201%. The participants of the event are faculties and research scholars from various institutions in and around this region along with the faculties from the department of ECE of AIET.

The inauguration ceremony was graced by the presence of Mrs. Kavitha Ram, Senior Manager, Dell technologies, Mrs Geeta S Nazre, Technical Manager, ESA Bangalore, Mr. Shriram, Sr. Sales Executive, ESA Bengaluru, Dr. DV Manjunatha, Hod Dept of ECE, Dr. Praveen J, Dean Academics, AIET and Dr. Dattathreya, Dean Planning.

The inaugural session started with a welcome address by Dr. D V Manjunatha, Head of the Dept., ECE, AIET. The blessing of almighty was invoked by Ms. Shrilakshmi, Student of 3rd semester ECE. Followed by this, the dignitaries on the dais lighted the lamp and formally inaugurated the session. A formal introduction of the chief guest of the function was done by Mrs. Tanya Mendiz, Asst Prof from the dept of ECE.

The keynote speech was delivered by the chief guest Mrs. Kavitha Ram, Senior Manager, Dell Technologies, who emphasized on the developments in the area of embedded system. She gave us an insight of the extent to which we use embedded gadgets on a daily basis. She concluded the session by highlighting the security measures like encryption and firewall security to be undertaken when a organization takes up a embedded project.

The host for the ceremony (hostess of the stage) was Ms. Kumari Shruthi, Dept. of ECE, AIET. The vote of thanks was proposed by Mr. Sachin K, Dept. of ECE, AIET.

The inaugural ceremony was followed by a short tea break.

Mrs. Geeta S Nazre took over the session later, who took up the basis of the session that is to be followed for the next 3 days. She graciously covered the entire basics Cortex M3 & M4 Overview. The session covered the topics of introduction, features of M3 & M4, Core Register Set.

The afternoon session was a detailed session on the Micro-architecture of Cortex M3 & M4, were the pipelining feature used in this technology was explained. The session helped us understand why this technology is far superior in terms of performance compared to the basic versions like MC 8051. Technology can be our best friend when it is rightly used. Without the in depth knowledge of the programming of ARM 7 Processor, we cannot conquer this technology. Mrs. Geeta took us through the introduction of assembler programming, Data processing instructions, Flow and control instructions. She managed to keep the participants engaged through the quiz session which followed after every topic.

DAY 2(17/1/2018)

The second day of the FDP was continued by the theory sessions on the topics memory management, exception handling, Exception overview, memory model by Mrs. Geeta S Nazre. She took up a quick review of all the topics she did so that participants could glance through topics she explained.

Post lunch we had the hands on session on using the software Kiel μV ison. Mrs. Geeta explained in details every feature within the software and steps to be followed when we test any programs. The carried on explaining us the basic assembly level programming on transfer of data followed by ADC program. An insight of embedded C language was also given during the session. With our introduction to hands on with basic programming we retired for the day.

DAY 3(18/1/2018)

The third day of the FDP started by introduction of KIT LPC1768. Every pair of participants was given this kit along with the VTU lab program interfacing kit. Mr..... explained the kit of its features, the method of usage, the connection between the peripheral and the board. He explained additional software like Flah magic and Tera...... which is used to dump the Hex file created in the software to the board.

After the introduction, the programs for the VTU prescribed ARM embedded lab programs were explained and steps involved in using the board ARM Cortex M3 LPC1768 were shown. The trainers and the resource person were engaged with all the participants to clear any kind of queries and made sure none of the participants were left behind before they

carried on to the next one. At the end of the day, we were able to complete 5 major programs that included LCD Interfacing, UART, LED blinking, Buzzer, Relays.



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI Department of Electronics & Communication Engineering

FDP on Embedded Controller Programming using ARM Cortex M3 16th Jan To 19th 2018

FEEDBACK FORM

	Strongly agree	Agree	Neutral	Disagree
1. The objective of the training wereclearly defined	•	0	0	0
2. Participation and interaction are encouraged	•	0	0	0
3. The topics covered were relevant to me	•	0	0	0
4.The content was organised and easy to follow	0	•	0	0
5. This training experience will be useful to my work	•	0	0	0
6.The trainer was knowledgeable about the training	·	0	0	0
topics				
7.The trainer was well prepared	·	0	0	0
8. The training objectives were met	o	•	0	0
9. The time allotted for the training was sufficient	•	0	0	0
10.The meeting room and faculties were adequate	0	o~	o	o
and comfortable				

Suggestions (if any): Vary	Isefull Workshop	I had a	nice Experine



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI Department of Electronics & Communication Engineering

FACULTY DEVELOPMENT PROGRAM On

Embedded Controller Programming using ARM Cortex M3

16th Jan To 19th 2018

FEEDBACK ANALYSIS

1 The	Strongly agree	Agree	Neutral	Disagree
1.The objective of the training were clearly defined	36%	40%	23%	2%
Participation and interaction are encouraged	53%	30%	14%	3%
3.The topics covered were relevant to me	61%	22%	16%	01%
4.The content was organized and easy to follow	60%	20%	15%	05%
5.This training experience will be useful to my work	55%	31%	10%	04%
6.The trainer was knowledgeable about the training topics	49%	40%	10%	2%
7.The trainer was well prepared	50%	30%	10%	10%
8.The training objectives were met	56%	14%	25%	05%
9.The time allotted for the training was sufficient	63%	20%	10%	07%
10.The meeting room and faculties were adequate and comfortable	44%	43%	08%	05%

Action Taken:

Coordinator

D.V.T HOD

Dept. Of Electronics & Communication Alva's Institute of Engg. & Technology Mijar, MOODB, DR: -574 225 H.O.D.















