# INTRODUCTION

This programme is targeted to Electronic, Electrical, and Mechatronic Engineers with some knowledge on Digital Signal Processing Concepts and Microprocessors. This course is based on the Texas Instruments' TMS320C6713 processor and its implementation using Code Composer Studio (CCS).

This programme provides emphasis on programming aspects of TMS320C6713 processor using CCS. Thus it offers various lab experiments to implement several DSP algorithms using C and Assembly Language Programming.

# LEARN THE FOLLOWING:

- CPU architecture of TMS320C6713
- Code Composer Studio (IDE)
- Implementing DSP algorithms on the CCS using C, ASM and mixed X and ASM programming
- Implementation using DSP BIOS
- Peripheral Controllers of TMS320C6713

### LAB TASKS:

- Sine generation using interrupts and polling
- IIR and FIR Filters
- Linear Assembly Language Programming
- C calling ASM, C calling Linear ASM,
- Dot Product using Parallel Instructions
- Fixed Point C implementations
- FIR implementation using Double-Word wide data



# Chief Patron Mr. Mohammed Jafer

Chairman

UMMUL QURA Educational Society

#### Patron

Mr. Mohammed Fathe Azmath

Vice Chairman

UMMUL QURA Educational Society

# **Co-Patron**

Mr. Mohammed Fathe Ilyas

Jt. Secretary

**UMMUL QURA Educational Society** 

### CONVENER

Dr. Mohammed S. Qaseem

Principal

Nizam Institute of Engineering & Technology

# **CORDINATORS**

Dr. M Mahesh

Prof and HOD, ECE Dept

Mr.G Narasimha Rao

Associate Professor, ECE Dept.

Mobile: 8498837639, Email: mailtograo@gmail.com

### **CO-CORDINATORS**

Mr. Md Nizamddin Salman

(Associate Prof)

Mobile: 9849549196

Ms.Sameera Begum (Assistant Prof)

Mr. Hasan Faiq (Assistant Prof)

Mrs. Swapna (Assistant Prof)

Ms. Nelafar (Assistant Prof)

Mr. Noor Elahi (Assistant.Prof)

# **Student Coordinator**

- 1) Ravi Varma, 9912511664.
- 2) Imtiyaz, 9573597258.

# TEQIP-II SPONSORED SHORT TERM TRAINING PROGRAMME

On

DIGITAL SIGNAL PROCESSING 28<sup>th</sup> - 30<sup>th</sup> March 2016.





Organized by

Department of Electronics and Communication Engineering

# NIZAM INSTITUTE OF ENGINEERING AND TECHNOLOGY

**Under TEQIP-II** 

(Approved by AICTE, Affiliated to JNTU Hyderabad) Deshmukhi, Near Romoji Film City Hyderabad Telangana – 508284

# **ABOUT NIET**

Nizam Institute of Engineering and Technology, a modern temple of learning, is an of shoot of the UMMUL QURA educational Society, this was established in the year 2001. Approved by AICTE, affiliated to JNTUH. B.Tech courses in 5 disciplines and M.Tech courses in 6 disciplines are offered.

# ABOUT THE DEPARTMENT

Established in the year 2002, the department has B.Tech degree in ECE with present intake of 60 and M.Tech in VLSI System Design and Digital Systems & Computer Electronics with an intake of 18 each. It has sophisticated infrastructure, state-of art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programs, industrial tours and visits, etc.

# RESOURCE PERSONS

Eminent speakers from various backgrounds will address the participants during the programme.

- 1) Mr. Madhusudhana Rao, Director, UG Consultants, Bengaluru.
- 2) Dr. Zia Ur Rahman, Professor, KL University, Guntur.
- 3) Mr. MD Abdul Bari, CCIE, Hyderabad.
- 4) Mr. Syed Mohammed Imran, Site Manager, L&T, Hvderabad.
- 5) Mrs. Asiya Sultana, HOD, ECE, BITS, Warangal.
- 6) Mr. Karthik Kumar, Assistant Prof, BITS, Warangal.
- 7) Mr. Radha Krishna, Assistant Professor, BITS, Warangal.

# WHO CAN PARTICIPATE?

Faculty members, Students and research scholars from AICTE/UGC approved Universities, Colleges and Polytechnic Institutions. The total number of participants is limited to 50 only, subject to first come first serve basis.

# **IMPORTANT DATES:**

Starting of Registration	15 <sup>th</sup> March, 2016.
Last Date for Registration	26 <sup>th</sup> March, 2016.
Programme	28 <sup>th</sup> -30 <sup>th</sup> March,2016

- 8259 68 44 MM EE \* 554 6

# FEE DETAILS:

■ ■ | 米郎區 | ちゅうな |

Free for NIET students.

For other college students Rs 100/-

Files  GEL files  Projects  for pres.	200	12176	質問し									
GEL files Projects Fig. 1 for pres.	1.67										_	-
for pres.		_								+	+	-
	pjt (Debug ident Project	-	_	-	-	-				-	+	+
DSP/BI	105 Config 1.00	11		-		-				rhom -	-	-
Includ	0.667	1			-11-11				-		+-1	-
e Source	16700.lb 0.333	+	-11	-11	-11-11		-	$-\Box$	-	##	+	-1
	dundancy.c 0	4				-	_	ш	-	Ш	+-	4
- [U] nesoro	-0.333	-	_		-	-				+-	-	-
	-0.667	-								-	+	-
	-1.00	-			-					+-	-	-
	-1.33		_		-	-				+	-	-
	-1.67		_	_						-		-
<b>c</b>	-200	42.7	85.3	128 17	1 213	256	29			384	427	469
04		92.7	00.3		1 213	200	.20					
	ools\bin\cl6x" -	-							Time	Lit	Fixed Sc	ale
uickly see umber of parts	I Browse Other Products	Send	Email Down	niced E Sev	e Settings				conti	om selec rols teste omers lik	d by	
nat meet your riteria	Additide Parameters	Status	Architecture	Number Act of sta Channels gain	, min ble Biv @ A n (V/V) (Mile)			at latband (Typ) (nV/VHz)				
	Total Parts 271 Matching Parts: 271	Active	Current Feedbac DSL Line Driver Fully Differential JFET-CMOS	T T	9 ≤3,000 9 ⇒3,000	≤ 10.500 → 10.500	≤1,200 Ch1,200	≤ 19.95 C→ 10.00	≤[10 □2-10	≤[44		
			Rel-to-Rel							T)-es	≤[150 C2-100	
	S Reset		Voltage Feedbac							E)-64	≤(150 C)-100	
	10 Reset		Statege Feedbac	1 21 21 21	21	1.4 ≥[1.4	22	_0.00 ≥0.00	±1.8	2)3.5 2)3.5	\$150 0.25 2.025	\$ 70 0 70
		HIRAL SO ACTIVE	Subject of the state of the sta	], ],	≥1	≥[1.4 ≥[1.4 	22 222		25	3.5	0.25	\$ 70 0 70
	THEASTHIT - High Temperature, Very Lov Power Negative Rai Issut, Rai-to-Rai Output, Differential Area	HIRM SO ACTIVE		], ],		4.7	222	≥0.63		215	0.25 ≥0.25	\$ 100 0,70
	Tressistant - High Temperature, Very Low Fower Bayes Tressing - Temperature Angul Tressing - Temperature - Tempera	ACTIVE	Fully Differential	], ],	40.7	39		19.55	25	3.5 ≥3.5 ≥3.5	20.25 20.25	\$ 700 2.70 2.31
	Techson and Felge Temperature Very Low Fourer Temperature Very Low Fourer South College Control of the College	ACTIVE	Fully Differential  Culteral Feedback	], ],	40.7 235 130	39 1300	65	19.85	25	2,3.5 ≥3.5 3.6	20.25 20.25 1.4	\$ 700 \$
	Trick432-ort - heigh Trick432-ort - heigh Trick432-ort - heigh Trick432-ort - heigh Trick432-ort - heigh Control Difference of the Control Difference Control Difference Ampriller Lamberta - Lam Privance Lamberta - Lamberta - Lambe	ACTIVE	Fully Differential  Culteral Feedback	1 1 1	40.7	39 1300	60	19.55	25 45 27	23.5 23.5 2.5 3.5 3.5 1.6	2025 2025 1.4	\$ 700 \$ 700 \$ 200 \$ 33 \$ 52 \$ 115
	TIGHASZLAT - Neph are Former Regions and Region and Reg	ACTIVE ACTIVE	Fully Differential  Culteral Feedback	1 1 1	40.7 235 130 130	39 1300 135 135 135	65 66 66 68	19.55 17 17 17	25 45 27 27 27 27	33 128 128 10	0.025 20.25 20.25 1.4 0.6 3 5	\$200 PT
	Treated 2 vet - hope from the first term of the	ACTIVE ACTIVE ACTIVE	Fully Differential  Culteral Feedback	], ],	40.7 235 130	39 1300 135 135	65 66 66	19.55 17 17 17	25 45 27 27 27	235 235 24 36 33 128 128	20 0 25 ≥ 0 25 ≥ 0 25 1.4 0.6 5	\$ [700 270 231 522 115 115
uick links to stasheets.	Procedure - Feling   Procedure	ACTIVE ACTIVE ACTIVE	Fully Differential  Current Feedback Vollage Feedback Vollage Feedback Vollage Feedback	1 1 1	40.7 235 130 130	39 1300 135 135 135	65 66 66 68 125	1985 19 85 17 17 17 17	25 45 27 27 27 27 27 27 28	33 128 128 10	0.025 20.25 20.25 1.4 0.6 3 5	\$200 PT
uick links to iatasheets, roduct details,	Delector Type Control of the Control	ACTIVE ACTIVE	Fully Differential  Current Feedback Vollage Feedback Vollage Feedback Vollage Feedback	21 21 21	46.7 236 130 130 130 130 130	39 1300 135 135 135	65 66 66 68 125	19 85 17 17 17 17	25 45 27 27 27 27 27 27 28	35 36 36 33 128 128 128 128	0.025 26.025 1.4 0.6 5 5	52 115 115 115 115

### ACCOMMODATION & TRAVELLING:

Accommodation and travelling will be borne by participants. However, travelling may be arranged for local travel from different parts of city to College will be Participants may also register through Email. provided by us.

### **REGISTRATION FORM**

Name:
Designation:
Address for Correspondence:
Mobile:
Email:
Institution/Organization:
Technical Qualification:
recinical Quantication.
Experience (Teaching):
Industrial:

### DECLARATION BY THE CANDIDATE

I declare that the above information is correct to the best of my knowledge and that my Institute/Department has no objection, if I attend the training programme.

Date: Signature of the Candidate

Brochure & Registration Form can also be downloaded from our Website www.nizamengineering.ac.in