

## MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

 $({\sf Approved}\,{\sf by}\,{\sf AICTE}, {\sf New}\,{\sf Delhi}\,{\sf and}\,{\sf Affiliated}\,{\sf to}\,{\sf Anna}\,{\sf University}, {\sf Chennai})$ 





# Department of Electronics and Communication Engineering Innovative Teaching Methods

Activity Title	Mini Project				
Faculty Name/Department	Dr.I.Manju / ECE				
Mapped Course Name & Code	DIGITAL SIGNAL PROCESSING				
Date	24.03.23				
Benefitted Students (Year / Sem / Dept)	II/IV/ECE				
Topic	Real time applications of signal processing				
Description	It results in the development of problem-solving and presentation skills, excellent team spirit, increase research skills, self-confidence, attitudinal change, and sense of achievement in the students.  Students were given a set of problems related to Real time applications of signal processing. They were asked to write a program and execute it in MATLAB. They were instructed to present the output for discussion and submit a report.				
Course Outcomes (CO)	Design solutions to real time problems using MATLAB				
Performance Indicator (PI)	1.4.1,9.1,11.1				
Mail ID ( for review)	ece.manju@msajce-edu.in				
Activity Photos	GPS Map Camera  MOHAMED SATHAK AJ COLLEGE OF ENG, Tamil Nadu, India R6P9+R9F, MSAJCE Siruseri, Tamil Nadu 600130, India Lat 12.835781° Long 80.219044° 24/03/23 09:48 AM GMT +05:30				

#### **List of the Mini Project:**

- 1. Vehicle Detector
- 2. Real Time [ECG]-QRS Detection
- 3. Design Of Digital Music Synthesizer
- 4. Dual Tone Multi Frequency [DTMF]
- 5. Deblurring Images Using A Regularized Filter
- 6. Adaptive Noise Cancellation Using Rls Adaptive Filtering
- 7. Earthquake Recording And Analysis
- 8. Handwritten Character Recognition using MATLAB Code
- 9. Brain Tumour Extraction From MRI Images
- 10. Detecting a Cancer Cell Using Image Segmentation
- 11. ECG Signals Denoising With SG Filter

#### Marks:

	Name Of The Students	Topics	Marks			Total
Team			Implemen	Presenta	Report (5)	
			tation(10)	tion (05)		
1	S.Humaira Nusrath	Vehicle Detector	10	5	5	20
	G.Sowndharaya		10	3	5	18
2	V.Abinayaa	Real Time ECG-QRS Detection	10	5	5	20
	S.Chithra		10	5	5	20
	H.Bhavani		10	5	5	20
	K.Nandhini.	Design Of Digital Music Synthesizer	10	5	5	20
3	Safia Farheen		10	3	5	18
	Asma Fathima		10	2	5	17
	S.Venkatesan	Dual Tone Multi	10	5	5	20
4	K.N Dhinesh		10	2	5	17
	Shagul Hameed	Frequency [DTMF]	10	2	5	17
	Anish Kumar	Deblurring	10	5	5	20
5	K. Suhail	Images Using	10	4	5	19
	S.Karthikeyan	A Regularized Filter	10	2	5	17
6	Maheswaran	Adaptive Noise	10	2	5	17
	C.Dhinesh	Cancellation Using Rls	10	3	5	18
	T.Surya	Adaptive Filtering	10	3	5	18

7	R.Halith Umar	Earthquake Recording And	10	4	5	19
	Suvan Kumar	Analysis	10	4	5	19
8	Syed Afrid	Handwritten Character	10	2	5	17
	J.Jayasudhan	Recognition using	10	2	5	17
	Majithul Hikkum	MATLAB Code	10	2	5	17
9	D.Kishore	Brain Tumour Extraction	10	3	5	18
	N.I .Mohamed Yahya	From MRI Images	10	3	5	18
10	A.Abdul Basid	Detecting A	10	3	5	18
	M.Mohammed Aathif	Cancer Cell Using Image	10	5	5	20
	V.Sanjay	Segmentation	10	4	5	19
11	A.Ariharan	ECG Signals	10	3	5	18
	R.Gajendiran	Denoising	10	2	5	17
	C.Sibi	With SG Filter	AB	AB	AB	AB

### Outcome:

- 1. Better understanding of real time applications of signal processing and MATLAB.
- 2. Students learnt how to function effectively as a member or leader of a teams, and execute a project.