

## E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS) NAGAPATTINAM

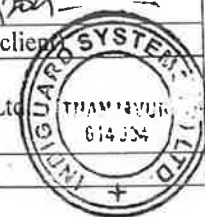
Consultancy Project Agreement	
Project Title:	Touch Free Temperature Monitor System
Name and Address of the Company:	Mrs.M.Ramya, M/S Indiguard Systems (P) Ltd, 3/365, Kollangarai Thanjavur.
Name of the Representative:	Mrs.M.Ramya
Phone: 8489667053	E-mail: ramya.indi@gmail.com

### Principal Consultant\*

S.No	Name of the Consultant	Designation	Department
1*	Mr.R.Anandaraj	Associate Professor	EEE
2	Mr.M.Vijayakumar	Associate Professor	EEE

Project Cost: Rs. 95,000	Service Tax: Nil
Total Project Cost: Rs. 95,000	
Duration of Proposed Work: Three Month	
Date of Commencement: 25/01/2021	Date of Completion: 23/04/2021
Scope of Proposed Work: use of non-contact temperature assessment devices during the COVID-19 pandemic	

We agree to the above proposal and also to the EGSPC terms & condition of EGSPEC Nagai.	
Signature: <i>R.A.</i> (Principal Consultant, EGSPEC, Nagai)	Signature: <i>[Signature]</i> (Authorized signatory of the client)
Name: Mr. R.Anandaraj Associate Professor / EEE	Name: Mrs.M.Ramya, M/S Indiguard Systems (P) Ltd
Date: 21/01/2021	Date: 21/01/2021



Head of the Department	EGSPC Office Use	Registered
Signature: <i>[Signature]</i>	Project Number: EGSPCS/QUOT/EEE/2021/103	
Date: 21/01/2021	Date: 21/01/2021	Signature: <i>[Signature]</i>

**Dr. V MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
 Department of Electronics Engg.  
 Nagapattinam

**E.G.S. PILLAY CONSULTANCY SERVICES  
E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM  
FORM FOR APPROVAL OF CONSULTANCY PROJECT**

1. Name of the Department/Office/Branch: EEE
2. Title of the Consultancy Project: Touch Free Temperature Monitor System
3. Consultancy Project Category: I/II/III
4. Duration of the Consultancy Project (Year/Month/Days): Three months
5. (i) Date of Commencement 25/01/2021(ii) Expected Date of Completion 25/04/2021
6. Detailed Project Report (DPR) attached: YES / NO
7. Client's Name and Address : Mrs.M.Ramya, M/S Indiguard Systems (P) Ltd, 3/365, Kollangarai, Thanjavur.
8. Type of Client (Tick): **Private Sector**/ Govt. Sector/ Public Sector /Foreign Agency / Others (Please Specify)
9. Payment to be received in : Full / Part ;Rs.47,500/-**Indian Currency** /Foreign Currency
10. Whether MoU/ Agreement Signed with Client (Attach, if any): **Signed** / Not Signed
11. Consent Letter from the Client attached: YES / NO
12. Consent Letter from the Consultant(s) attached: YES / NO
13. Details of Persons involved in the Consultancy Project:

Name of Consultant(s) along with Designation & Department/Office/Branch	Brief role	Signature
Mr.R.Anandaraj Associate Professor / EEE	PI	R.A - by
Mr.M.Vijayakumar Associate Professor / EEE	CO - PI	Vijayakumar

Signature of the Principal Consultant (with date)

**Dr. V. MOHAN**  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg

Forwarded by Head of Department/ branch/office **E.G.S. Pillay Engineering College Nagapattinam**

**Director (EGSPCS) Office, EGSPEC**

Consultancy Project No.:EGSPCS/APP/EEE/2021/103

Dated: 21/01/2021

Recommendations of EGSPCS Committee: Approved / Not Approved / Suggestions for improvement

Convener

Member(s)

**Dr. V. MOHAN M.E.,Ph.D.,**  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
College - Nagapattinam

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**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

(Performa for making request for issuance billing for Consultancy and Testing Projects)

Project Title/Description : Touch Free Temperature Monitor System

MLX 90614 ESF Non contact temperature sensor, 16x2 LCD display, Ultrasonic sensor,  
ATMEGA 328 Controller, Power Circuit and Cabinet Design

Name of the Client: Mrs.M.Ramya

Approval No: EGSPCS/APP/EEE/2021/103 Dated: 21/01/2021

Billing Amount in Rs. 95,000

Payment through Cash /Cheque/DD No. 993938 21/2/21  
993940 Dated 30/3/21

Dated: 30/03/2021

Signature R. Anandaraj 30/3/21

Name of P.I. : R.Anandaraj, Asso. Prof / EEE

Department : EEE

V. Mohan 30/3/21  
Director Consultancy Services/HOD

Ref: Copy of Job Approval Form

Dr. V. MOHAN M.E.,Ph.D.,  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg  
E.G.S. Pillay Engineering College - Nagapattinam

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAİKAL**

No:-1787 /PW/SDR/KKL/2019-20

Dt.12.03.2020

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

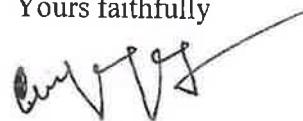
Sir,

**Sub:- PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Concrete cube for Deck Slab Requested - Regarding**

I am sending herewith the following samples of Concrete cube of Deck Slab the above said work for conducting necessary mandatory tests. In this connection it is requested that necessary test report of the same may be send to this office for taking further action please.

Grade of Concrete	:	RCC M30
Part of Structure	:	Deck Slab
Casing Date	:	13.02.2020
Cube test for	:	test for 28 days curing
Testing date	:	12.03.2020

Yours faithfully



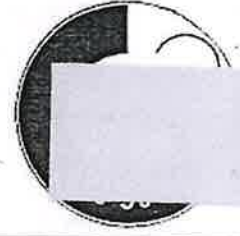
**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAİKAL**

Encl: 1 set of 3 cubes

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



**E.G.S. PILLAY ENGINEERING COLLEGE**  
 NAGAPATTINAM - 611 002.  
 (An ISO 9001:2015 Certified Institution)  
 (Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)  
 (Affiliated to Anna University Chennai)



**Consultancy services**  
 (Department of Civil Engineering)

No. EGSPEC/MTR/4099/2020

Date: 12.03.2020

**COMPRESSIVE STRENGTH OF CONCRETE CUBES [M30 RCC]**

[As per IS:516]

Assistant Engineer (Roads)  
 V.D. Karaikal District.

**Name of Work** : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

**Reference** : 1787/PW/SDNH/KKL-2019-20 Dated: 12.03.2020

**Requested on** : 12.03.2020

**Grade of Concrete** : M30 RCC

**Part of Structure** : Deck Slab

**Date of Cubes casting**: 13.02.2020

**Date of Testing (28 days)**: 12.03.2020

**Characteristic Compressive Strength**: 30 N/mm<sup>2</sup>

**Size of Cube**: 15cm x 15cm x 15cm

**Volume of cube**: 3375cc

**Area of Cube**: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	Deck Slab/01	8627	2.556	28	880	39.11	37.33	
2	Deck Slab/02	8571	2.540	28	830	36.89		
3	Deck Slab/03	8509	2.521	28	810	36.00		

Average compressive Strength: 37.33 N/mm<sup>2</sup> [Limit: ≥ 30N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are within the specification limits.

Supervised by  
 12.03.2020



Head of the Dept.  
 Dr. R. SIVAKUMAR, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DIVUSUIB P.W.D KARAIKAL**

No:-1770 /PW/SDR/KKL/2019-20

Dt.06.01.2020

**EGS PILLAY ENGINEERING WORKS  
OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**

**RECEIPT**

Bill No : 1020  
Name : P.W.D /Karaikal  
Roll No :  
YEAR :  
Date : 12-March-2020  
Course :  
Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	1500

Rupees : one Thousand five hundred Only



**AMOUNT WILL NOT BE REFUNDED**

*[Signature]*  
Cashier

*[Signature]*  
Accountant

*[Signature]*  
Payee's Signature and Name

Arasalar at Athipadugai village  
raikal – Testing of Steel  
- Regarding

th the samples of steel  
andatory tests. In this  
ated as early as possible please.

faithfully

*[Signature]*

**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.

Three steel samples for each size

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DIVISION P.W.D KARAIKAL**

No:-1770 /PW/SDR/KKL/2019-20

Dt.06.01.2020

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Steel & Aggregate samples (Coarse and Fine Aggregate) Requested - Regarding

With reference to the above subject, I am sending herewith the samples of steel Aggregate samples (Coarse and Fine Aggregate) for conducting all mandatory tests. In this connection it is requested that necessary test report may be communicated as early as possible please.

**Coarse Aggregate (20mm+12.5mm+M-Sand)**

Sieve Analysis tests (Individual / Combined), AIV  
Source of Material: Karur Blue Metal.

**Steel:**

Size of Steel: 8mm, 10mm, 12mm, 16mm, 25mm & 32mm

Brand: JSW- Fe 500D

**Test to be conducted**

1. Tensile strength
2. Elongation test
3. Weight per metre
4. Bend and re bend test
5. Proof stress test
6. Yield strength

Yours faithfully



Encl: Aggregate samples & steel 3 Samples for each size ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.





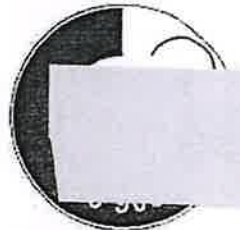
# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)

(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

No. EGSPEC/MTR/4071/2020

Date: 11.01.2020

### STEEL TEST RESULTS

EGS PILLAY ENGINEERING COLLEGE  
1010 NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002

#### RECEIPT

Bill No : 1010  
Name : P.W.D / Karaikal  
Roll No :  
YEAR :  
Date : 11-Jan-2020  
Course :  
Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	8000

8000.00

Rupees : Eight Thousand Only

AMOUNT WILL NOT BE REFUNDED



Payee's Signature and Name  
*[Signature]*

*[Signature]*  
Cashier

Inspector at Athipadugai  
cluster,

tested: 07.01.2020

End	Rebend
actory	Satisfactory
ctory	Satisfactory

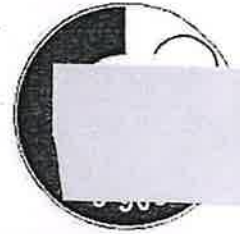
on limits...

*[Signature]*  
11/1/20  
the Dept.  
KUMAR, M.E., Pn.D.  
essor & Head  
of Civil Engineering:  
Engineering College,  
Nagapattinam.

Conti.,



**E.G.S. PILLAY ENGINEERING COLLEGE**  
 NAGAPATTINAM - 611 002.  
 (An ISO 9001:2015 Certified Institution)  
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 (Affiliated to Anna University Chennai)



**Consultancy services**  
 (Department of Civil Engineering)

No. EGSPEC/MTR/4071/2020

Date: 11.01.2020

**STEEL TEST RESULTS**  
 (IS: 1786: 2008)

Assistant Engineer (Roads)  
 Z.D. Karaikal District.

**Name of Work** : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

**Reference** : 1770/PW/SDR/KKL-2019-20 Dated: 06.01.2020

**Kind of Steel** : JSW - Neosteel **Grade of Steel: Fe 500D**

**Requested on** : 06.01.2020 **Date of tested: 07.01.2020**

Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
8mm TMT (JSW - Neosteel- Fe 500D)	0.3877	540	622	19.7	-	-
	0.3902	-	-	-	Satisfactory	-
	0.3887	-	-	-	-	Satisfactory
10mm TMT (JSW - Neosteel- Fe 500D)	0.6170	553	619	20.1	-	-
	0.6187	-	-	-	Satisfactory	-
	0.6193	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

*A. Am*  
 Supervised by

Note:

- Any correction without attestation will not be valid in this certificate.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



*R. Sivakumar*  
 Head of the Dept.  
 Dr R. SIVAKUMAR, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.

Conti.,



# E.G.S. PILLAY ENGINEERING COLLEGE

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Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
12mm TMT (JSW - Neosteel-Fe 500D)	0.8995	547	632	22.7	-	-
	0.8911	-	-	-	Satisfactory	-
	0.8925	-	-	-	-	Satisfactory
16mm TMT (JSW - Neosteel-Fe 500D)	1.5847	-	-	-	Satisfactory	-
	1.5898	553	646	22.9	-	-
	1.5826	-	-	-	-	Satisfactory
25mm TMT (JSW - Neosteel-Fe 500D)	3.8592	540	602	20.5	-	-
	3.8758	-	-	-	Satisfactory	-
	3.8769	-	-	-	-	Satisfactory
32mm TMT (JSW - Neosteel-Fe 500D)	6.3022	547	629	20.7	-	-
	6.3050	-	-	-	Satisfactory	-
	6.2974	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

*A. M. 11-01-2020*  
Supervised by

Note:

- Any correction without attestation will be void in this certificate.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



*[Signature]*  
**Head of the Dept.**  
 Dr. R. SIVARUNJAN, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.

Conti.,





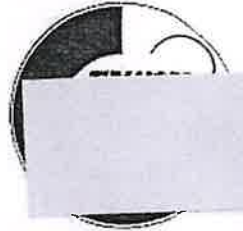
# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)

(Affiliated to Anna University Chennai)



## Specification Limits (Physical & Mechanical properties):

Grade of Steel: Fe 500D

dia. of Steel	Mass per Meter (Kg.)	Tolerance of Nominal mass	Tolerance per Mass (Kg.)	0.2 percent proof stress / Yield stress Min. N/mm <sup>2</sup>	Elongation percent, Min.	Tensile Strength (N/mm <sup>2</sup> )
8mm	0.395	Up to and including 10mm $\pm 8\%$	0.363 - 0.427	500	16.0	10 percent more than the actual 0.2 percent Proof stress /yield stress. But not less than 565 N/mm <sup>2</sup> .
10mm	0.617		0.568 - 0.666			
12mm	0.888	10mm up to and including 16mm $\pm 6\%$	0.835 - 0.941			
16mm	1.58		1.485 - 1.675			
20mm	2.47	Over 16mm $\pm 4\%$	2.371 - 2.569			
25mm	3.85		3.696 - 4.004			
32mm	6.31		6.058 - 6.562			

Supervised by

Note:

1. Any correction without attestation will be invalid date in this certificate
2. Materials were supplied by the job requester
3. The results relate only to the samples tested.



Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAICAL**

Dt.15.06.2019

**EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**



**RECEIPT**

Bill No : 1011  
 Name : P.W.D /Karaikal  
 Roll No :  
 YEAR :  
 Date : 11-Jan-2020  
 Course :  
 Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	18000
Rupees: Eighteen Thousand Only	
	18000.00

**AMOUNT WILL NOT BE REFUNDED**



*[Signature]*  
Accountant

*[Signature]*  
Cashier

at Athipadugai village  
Testing of

sample of Cement  
communicated as early as

*[Signature]*

Payee's Signature and Name

ithfully

**ENGINEER (ROADS)  
KARAICAL**

aikal – for kind

information please.



**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAİKAL**

No:-1684 /PW/SDR/KKL/2019-20

Dt.15.06.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Cement Requested - Regarding

With reference to the above subject, I am sending herewith the sample of Cement testing. In this connection it is requested that necessary test report may be communicated as early as possible please.

**Cement:**

Cement: Coromandel @ OPC 53

1. Consistency of Cement
2. Initial & Final setting time
3. Fineness of Cement
4. Soundness of Cement (Le-Chatalier method)
5. Mortar Cubes testing (3 days, 7 days & 28 days)

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAİKAL**

Encl: 1 Cement Bag (50KG)

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAİKAL**

No:-1684 /PW/SDR/KKL/2019-20

Dt.15.06.2019

To

**The Head of the Department.,**  
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EGS Pillay Engineering College,  
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5. Mortar Cubes testing (3 days, 7 days & 28 days)

Yours faithfully

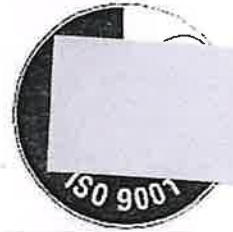
**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAİKAL**

Encl: 1 Cement Bag (50KG)

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



**E.G.S. PILLAY ENGINEERING COLLEGE**  
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 (Affiliated to Anna University Chennai)



**Consultancy services**  
 (Department of Civil Engineering)

No. EGSPEC/MTR/3945/2019

Date: 14.07.2019

**CEMENT TEST RESULTS**  
 (IS: 269: 2015)

Assistant Engineer (Roads)  
 V.D. Karaikal District.

**Name of Work** : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

**Reference** : 1684/PW/SDR/KKL-2019-20 Dated: 15.06.2019

**Requested on** : 15.06.2019

**Date of Cement tested:** 16.06.2019

**Mortar Cubes Casted Date:** 16.06.2019

**Date of Mortar cubes testing(3days):** 19.06.2019, **(7days):** 23.06.2019, **(28days):** 14.07.2019

**Brand of Cement:** Coromandel

**Grade of Cement:** OPC-53

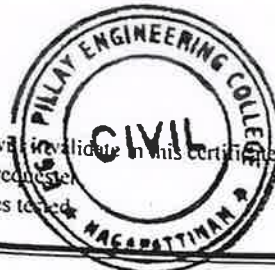
**Week No:** 24<sup>th</sup>

	<u>Test Results</u>		<u>Specification Limits</u> (IS: 269: 2015)
Normal Consistency of Cement	(%)	: 31.5 %	-
<u>Setting Time</u>			
Initial Setting Time	(minutes)	: 150	Min. 30
Final Setting Time	(minutes)	: 315	Max. 600
Fineness of Cement (By Drying Sieve)	(%)	: 2.88	10%
Soundness of Cement (Le-Chatelier Method)	(mm)	: 3.9	Max. 10 mm
<u>Compressive Strength of Cement Mortar Cubes</u>			
3 days	(72 ± 1 h, Min)	Mpa : 33.44	Min, 27 Mpa
7 days	(168 ± 2 h, Min)	Mpa : 46.48	Min, 37 Mpa
28 days	(672 ± 4 h, Min)	Mpa : Awaited	Min, 53 Mpa

Supervised by

Note:

- Any correction without attestation will be invalid in this certificate
- Materials were supplied by the job requester
- The results relate only to the samples tested



Head of the Dept.  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.



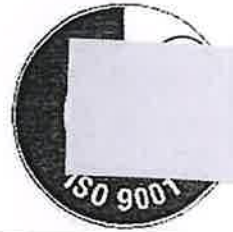
# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

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(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

No. EGSPEC/MT/3944/2019

Date: 14.07.2019

### COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

Assistant Engineer (Roads)  
V.D. Karaikal District.

**name of Work** : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

**Reference** : 1684/PW/SDR/KKL-2019-20 Dated: 15.06.2019

**Requested on** : 15.06.2019

**Brand of Cement** : Coromandel

**Grade of Cement**: OPC-53

**Week No**: 24<sup>th</sup>

**Date of Casted** : 16.06.2019

**Date of tested (28 days)**: 14.07.2019

**Size of Mortar Cube**: 7.06cm x 7.06cm x 7.06cm **Volume of cube**: 351.896cc **Area of Cube**: 49.84cm<sup>2</sup>

No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	1	848	2.410	28	283	56.78	57.18	
2	2	839	2.384	28	295	59.19		
3	3	841	2.390	28	277	55.58		

Average compressive Strength: **57.18 N/mm<sup>2</sup>** [Minimum: **53 Mpa.**]

# 3 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

Supervised by  
A. Anu 14.07.2019



Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Note:

- Any correction without attestation will invalidate in this certificate
- Materials were supplied by the job request.
- The results relate only to the samples tested.





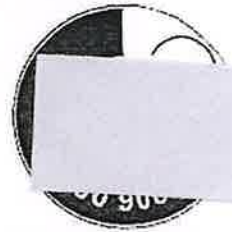
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## Consultancy services

(Department of Civil Engineering)

No. EGSPEC/MTR/3931/2019

Date: 23.06.2019

## COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

Assistant Engineer (Roads)  
N.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1684/PW/SDR/KKL-2019-20 Dated: 15.06.2019

Requested on : 15.06.2019

Brand of Cement : Coromandel

Grade of Cement: OPC-53

Week No: 24<sup>th</sup>

Date of Casted : 16.06.2019

Date of tested (7 days): 23.06.2019

Size of Mortar Cube: 7.06cm x 7.06cm x 7.06cm Volume of cube: 351.896cc Area of Cube: 49.84cm<sup>2</sup>

S. No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	4	845	2.401	7	225	45.14	46.48	
2	5	840	2.387	7	235	47.15		
3	6	838	2.381	7	235	47.15		

Average compressive Strength: **46.48 N/mm<sup>2</sup>** [Minimum: 37 Mpa.]

# 7 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

Supervised by

Note:

- Any correction without attestation will not take in this certificate
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.  
D. S. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



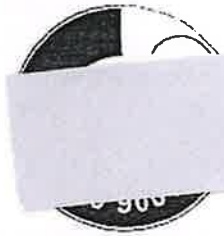


# E.G.S. PILLAY ENGINEERING COLLEGE

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## Consultancy services (Department of Civil Engineering)

No. EGSPEC/MT/3926/2019

Date: 18.06.2019

### COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

Requested by: Assistant Engineer (Roads)  
W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1684/PW/SDR/KKL-2019-20 Dated: 15.06.2019

Requested on : 15.06.2019

Brand of Cement : Coromandel

Grade of Cement: OPC-53

Week No: 24<sup>th</sup>

Date of Casted : 16.06.2019

Date of tested (3 days): 19.06.2019

Size of Mortar Cube: 7.06cm x 7.06cm x 7.06cm Volume of cube: 351.896cc Area of Cube: 49.84cm<sup>2</sup>

S. No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	1	844	2.398	3	175	35.11	33.44	
2	2	831	2.361	3	160	32.10		
3	3	837	2.379	3	165	33.11		

Average compressive Strength: **33.44 N/mm<sup>2</sup>** [Minimum: 27 Mpa.]

# 3 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

Supervised by  
*A. M. 18-06-2019*



Head of the Dept.

*R. S. Sivakumar*  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Note:

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- Materials were supplied by the job requester.
- The results relate only to the samples tested.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DIVISION P.W.D KARAIKAL**

No:-1693 /PW/SDR/KKL/2019-20

Dt.20.06.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Steel

Requested - Regarding

With reference to the above subject, I am sending herewith the samples of steel for conducting all mandatory tests. In this connection it is requested that necessary test report may be communicated as early as possible please.

**Steel:**

Size of Steel: 8mm, 10mm, 12mm, 16mm, 25mm & 32mm

Brand: JSW- Fe 500D

**Test to be conducted**

1. Tensile strength
2. Elongation test
3. Weight per metre
4. Bend and re bend test
5. Proof stress test
6. Yield strength

Yours faithfully

**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: 3 Samples for each size

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



# E.G.S. PILLAY ENGINEERING COLLEGE

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## Consultancy services

(Department of Civil Engineering)

No. EGSPEC/MTR/3930/2019

Date: 24.06.2019

## STEEL TEST RESULTS

(IS: 1786: 2008)

Assistant Engineer (Roads)

D. Karaikal District.

**Name of Work** : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

**Reference** : 1693/PW/SDR/KKL-2019-20 Dated: 20.06.2019

**Kind of Steel** : JSW - Neosteel

**Grade of Steel**: Fe 500D

**Requested on** : 20.06.2019

**Date of tested**: 21.06.2019

Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
8mm TMT (JSW - Neosteel- Fe 500D)	0.3911	555	610	19.5	-	-
	0.3942	-	-	-	Satisfactory	-
	0.3990	-	-	-	-	Satisfactory
10mm TMT (JSW - Neosteel- Fe 500D)	0.6189	550	596	20.2	-	-
	0.6192	-	-	-	Satisfactory	-
	0.6181	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

Supervised by

Note:

- Any correction without attestation will invalidate this certificate
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.  
Dr. K. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Conti.,





# E.G.S. PILLAY ENGINEERING COLLEGE

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Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
12mm TMT (JSW - Neosteel- Fe 500D)	0.8925	562	625	20.9	-	-
	0.8907	-	-	-	Satisfactory	-
	0.8897	-	-	-	-	Satisfactory
16mm TMT (JSW - Neosteel- Fe 500D)	1.5857	547	607	22.3	-	-
	1.5892	-	-	-	Satisfactory	-
	1.5890	-	-	-	-	Satisfactory
25mm TMT (JSW - Neosteel- Fe 500D)	3.8611	561	630	21.5	-	-
	3.8808	-	-	-	Satisfactory	-
	3.8921	-	-	-	-	Satisfactory
32mm TMT (JSW - Neosteel- Fe 500D)	6.3102	541	592	20.7	-	-
	6.3048	-	-	-	Satisfactory	-
	6.3098	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

*A. M. 24.06.2019*  
Supervised by

Note:

1. Any correction without attestation will invalidate in this certificate
2. Materials were supplied by the job register
3. The results relate only to the samples tested.



*[Signature]*  
Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Conti.,



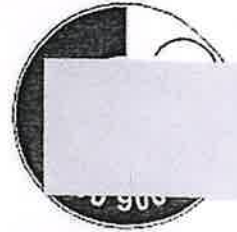
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## Specification Limits (Physical & Mechanical properties):

Grade of Steel: Fe 500D

dia. of Steel	Mass per Meter (Kg.)	Tolerance of Nominal mass	Tolerance per Mass (Kg.)	0.2 percent proof stress / Yield stress Min. N/mm <sup>2</sup>	Elongation percent, Min.	Tensile Strength (N/mm <sup>2</sup> )
8mm	0.395	Up to and including 10mm ±8%	0.363 – 0.427	500	16.0	10 percent more than the actual 0.2 percent Proof stress /yield stress. But not less than 565 N/mm <sup>2</sup> .
10mm	0.617		0.568 – 0.666			
12mm	0.888	10mm up to and including 16mm ±6%	0.835 – 0.941			
16mm	1.58		1.485 – 1.675			
20mm	2.47	Over 16mm ±4%	2.371 – 2.569			
25mm	3.85		3.696 – 4.004			
32mm	6.31		6.058 – 6.562			

A-AM 24-06-2019  
Supervised by

**Note:**

1. Any correction without attestation will invalidate this certificate
2. Materials were supplied by the job requester
3. The results relate only to the samples tested.



Head of the Dept.

Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAİKAL**

No:-1697 /PW/SDR/KKL/2019-20

Dt.30.06.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Concrete cube for Pier P2 Requested - Regarding

I am sending herewith the following samples of Concrete cube of Pier P2 the above said work for conducting necessary mandatory tests. In this connection it is requested that necessary test report of the same may be send to this office for taking further action please.

Grade of Concrete	:	RCC M30
Part of Structure	:	Pier P2
Casing Date	:	02.06.2019
Cube test for	:	test for 28 days curing
Testing date	:	30.06.2019

Yours faithfully

**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAİKAL**

Encl: 1 set of 3 cubes

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



**E.G.S. PILLAY ENGINEERING COLLEGE**  
 NAGAPATTINAM - 611 002.  
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 (Affiliated to Anna University Chennai)



**Consultancy services**  
 (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3933/2019

Date: 30.06.2019

**COMPRESSIVE STRENGTH OF CONCRETE CUBES [M30 RCC]**

[As per IS:516]

To  
 The Assistant Engineer (Roads)  
 P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1697/PW/SDNH/KKL-2019-20 Dated: 30.06.2019

Requested on : 30.06.2019

Grade of Concrete : M30 RCC

Part of Structure : Pier P2

Date of Cubes casting: 02.06.2019

Date of Testing (28 days): 30.06.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	Pier P2-01	8499	2.518	28	755	33.56	33.36	
2	Pier P2-02	8565	2.538	28	762	33.87		
3	Pier P2-03	8532	2.528	28	735	32.67		

Average compressive Strength: 33.36 N/mm<sup>2</sup> [Limit: ≥ 30.00 N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are within the specification limit.

Supervised by  
*A. J. M. 30.06.19*

Note:

- Any correction without attestation will invalidate this certificate
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.  
 Dr. R. SIVAKUMAR, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAIKAL**

No:-1686 /PW/SDR/KKL/2019-20

Dt.18.06.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:- PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Concrete cube for Pile P1 Requested - Regarding**

I am sending herewith the following samples of Concrete cube of Pile P1 the above said work for conducting necessary mandatory tests. In this connection it is requested that necessary test report of the same may be send to this office for taking further action please.

Grade of Concrete	:	RCC M30
Part of Structure	:	Pile P1
Casing Date	:	11.06.2019
Cube test for	:	test for 7 days curing
Testing date	:	18.06.2019

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: 1 set of 3 cubes

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.

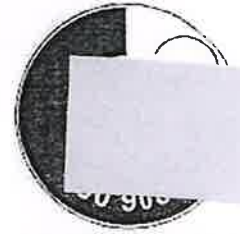


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Consultancy services  
(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3929/2019

Date: 18.06.2019

## COMPRESSIVE STRENGTH OF CONCRETE CUBES [M30 RCC]

[As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1686/PW/SDNH/KKL-2019-20 Dated: 18.06.2019

Requested on : 18.06.2019

Grade of Concrete : M30 RCC

Part of Structure : Pile P1

Date of Cubes casting: 11.06.2019

Date of Testing (7 days): 18.06.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	Pile P1/01	8585	2.544	7	578	25.69	25.07	
2	Pile P1/02	8555	2.535	7	546	24.27		
3	Pile P1/03	8478	2.512	7	568	25.24		

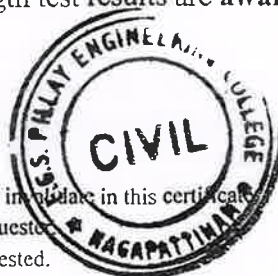
Average compressive Strength: 25.07 N/mm<sup>2</sup> [Limit:  $\geq 20.10$  N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are awaited.

Supervised by

Note:

- Any correction without attestation will invalidate in this certificate.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept., M.E., Ph.D.  
Dr. R. SIVAKUMAR  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DIVISION P.W.D KARAIKAL**

No:-1679 /PW/SDR/KKL/2019-20

Dt.30.05.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:- PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Concrete cube for Test Pile Requested - Regarding**

I am sending herewith the following samples of Concrete cube of test pile the above said work for conducting necessary mandatory tests. In this connection it is requested that necessary test report of the same may be send to this office for taking further action please.

Grade of Concrete	:	RCC M30
Part of Structure	:	Test pile
Casting Date	:	02.05.2019
Cube test for	:	test for 28 days curing
Testing date	:	30.05.2019

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: 1 set of 3 cubes

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



# E.G.S. PILLAY ENGINEERING COLLEGE

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(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3921/2019

Date: 30.05.2019

### COMPRESSIVE STRENGTH OF CONCRETE CUBES [M30 RCC]

[As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1679/PW/SDNH/KKL-2019-20 Dated: 09.05.2019

Requested on : 09.05.2019

Grade of Concrete : M30 RCC

Part of Structure : Test Pile

Date of Cubes casting: 02.05.2019

Date of Testing (28 days): 30.05.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	Test pile-4	8633	2.558	28	779	34.62	34.80	
2	Test pile-5	8549	2.533	28	810	36.00		
3	Test pile-6	8511	2.522	28	760	33.78		

Average compressive Strength: 34.80 N/mm<sup>2</sup> [Limit:  $\geq 30.00$  N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are within the specification limit.

Supervised by

Note:

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2. Materials were supplied by the job requester.
3. The results relate only to the samples tested.



Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAIKAL**

No:-1671 /PW/SDR/KKL/2019-20

Dt.09.05.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

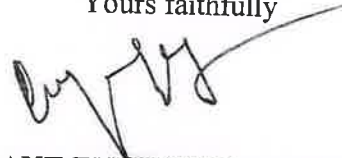
Sir,

**Sub:- PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Concrete cube for Test PileRequested - Regarding**

I am sending herewith the following samples of Concrete cube of test pile the above said work for conducting necessary mandatory tests. In this connection it is requested that necessary test report of the same may be send to this office for taking further action please.

Grade of Concrete	:	RCC M30
Part of Structure	:	Test pile
Casing Date	:	02.05.2019
Cube test for	:	test for 7 days curing
Testing date	:	09.05.2019

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: 1 set of 3 cubes

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



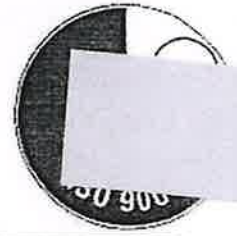
# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3905/2019

Date: 09.05.2019

### COMPRESSIVE STRENGTH OF CONCRETE CUBES [M30 RCC]

[As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1671/PW/SDNH/KKL-2019-20 Dated: 09.05.2019

Requested on : 09.05.2019

Grade of Concrete : M30 RCC

Part of Structure : Test Pile

Date of Cubes casting: 02.05.2019

Date of Testing (7 days): 09.05.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	Test pile-1	8476	2.511	7	505	22.44	23.33	
2	Test pile-2	8537	2.529	7	550	24.44		
3	Test pile-3	8445	2.505	7	520	23.11		

Average compressive Strength: 23.33 N/mm<sup>2</sup> [Limit: ≥ 20.10 N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are awaited.

Supervised by

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Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering  
E.G.S. Pillay Engineering College,  
Nagapattinam.



**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DUVUSUIB P.W.D KARAIKAL**

No:-1653 /PW/SDR/KKL/2019-20

Dt.17.04.20219

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Steel

Requested - Regarding

With reference to the above subject, I am sending herewith the samples of steel for conducting all mandatory tests. In this connection it is requested that necessary test report may be communicated as early as possible please.

**Steel:**

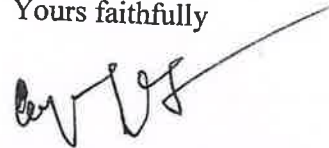
Size of Steel: 8mm, 10mm, 12mm, 16mm, 25mm & 32mm

Brand: JSW- Fe 500D

**Test to be conducted**

1. Tensile strength
2. Elongation test
3. Weight per metre
4. Bend and re bend test
5. Proof stress test
6. Yield strength

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: 3 Samples for each size

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3901/2019

Date: 20.04.2019

## STEEL TEST RESULTS

(IS: 1786: 2008)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1653/PW/SDR/KKL-2019-20 Dated: 17.04.2019

Brand of Steel : JSW - Neosteel

Grade of Steel: Fe 500D

Requested on : 17.04.2019

Date of tested: 18.04.2019

S. No.	Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
1	8mm TMT (JSW - Neosteel- Fe 500D)	0.3972	559	659	18.8	-	-
2		0.3957	-	-	-	Satisfactory	-
3		0.3989	-	-	-	-	Satisfactory
4	10mm TMT (JSW - Neosteel- Fe 500D)	0.6182	537	589	21.0	-	-
5		0.6175	-	-	-	Satisfactory	-
6		0.6189	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

Supervised by  
*A. J. A. 2019*

Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Head of the Dept.

Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Note:

- Any correction without attestation will not be considered.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Conti.,



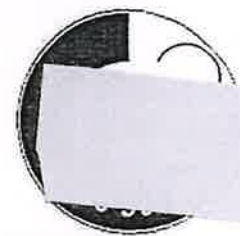
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S. No.	Dia. / Brand of Steel (mm)	Weight per Meter (Kg)	0.2% Proof - Stress (N/mm <sup>2</sup> )	Ultimate Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Bend	Rebend
7	12mm TMT (JSW - Neosteel-Fe 500D)	0.8895	530	601	20.0	-	-
8		0.8975	-	-	-	Satisfactory	-
9		0.9011	-	-	-	-	Satisfactory
7	16mm TMT (JSW - Neosteel-Fe 500D)	1.5887	-	-	-	Satisfactory	-
8		1.5789	537	621	21.0	-	-
9		1.5866	-	-	-	-	Satisfactory
10	25mm TMT (JSW - Neosteel-Fe 500D)	3.8656	533	617	22.5	-	-
11		3.8798	-	-	-	Satisfactory	-
12		3.8928	-	-	-	-	Satisfactory
16	32mm TMT (JSW - Neosteel-Fe 500D)	6.2975	559	649	21.2	-	-
17		6.3095	-	-	-	Satisfactory	-
18		6.3122	-	-	-	-	Satisfactory

# The Physical and Mechanical properties of steel test results are within the specification limits...

*Signature*  
20.4.19  
Supervised by

Note:

1. Any correction without attestation will be void date in this certificate.
2. Materials were supplied by the job requester.
3. The results relate only to the samples tested.



*Signature*  
Head of the Dept.

**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Conti..



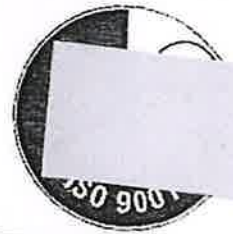


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## Specification Limits (Physical & Mechanical properties):

Grade of Steel: Fe 500D

Dia. of Steel	Mass per Meter (Kg.)	Tolerance of Nominal mass	Tolerance per Mass (Kg.)	0.2 percent proof stress / Yield stress Min. N/mm <sup>2</sup>	Elongation percent, Min.	Tensile Strength (N/mm <sup>2</sup> )
8mm	0.395	Up to and including 10mm ±8%	0.363 - 0.427	500	16.0	10 percent more than the actual 0.2 percent Proof stress /yield stress. But not less than 565 N/mm <sup>2</sup> .
10mm	0.617		0.568 - 0.666			
12mm	0.888	10mm up to and including 16mm ±6%	0.835 - 0.941			
16mm	1.58		1.485 - 1.675			
20mm	2.47	Over 16mm ±4%	2.371 - 2.569			
25mm	3.85		3.696 - 4.004			
32mm	6.31		6.058 - 6.562			

Supervised by

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Head of the Dept  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



**GOVERNMENT OF PUDUCHERRY  
OFFICE OF THE ASSISTANT ENGINEER  
ROADS SUB DIVISION P.W.D KARAIKAL**

No:-1642 /PW/SDR/KKL/2019-20

Dt. 23.03.2019

To

**The Head of the Department.,**  
Department of Civil Engineering,  
EGS Pillay Engineering College,  
Nagapattinam.

Sir,

**Sub:-** PW-AE(R)-KKL- Construction of Bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal – Testing of Coarse, Fine aggregate, M-Sand, Cement testing, Water & Concrete Mix designs (M-30 Pile & M-30 RCC) Requested - Regarding

With reference to the above subject, I am sending herewith the samples of Testing of Coarse, Fine aggregate, M-Sand, Cement testing, Water for conducting all mandatory tests along with concrete mix designs M-30 Pile & M-30RCC, in this connection it is requested that necessary test report may be communicated as early as possible please.

**Materials**

1. Coarse & Fine Aggregate (20mm, 12.5mm, M-Sand)  
(Source of Material: Stock yard @ site, Karur Blue Metal, Karur)
2. Water: Bore well water @ Athipadugai Village
3. Cement: Coromandel @ OPC 53
4. Admixture: Sika India Pvt Ltd.,

Yours faithfully



**ASSISTANT ENGINEER (ROADS)  
P.W.D. KARAIKAL**

Encl: As stated above

Copy Submitted to:- The Executive Engineer, B & R, Division, P.W.D, Karaikal – for kind information please.



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Consultancy services  
(Department of Civil Engineering)

Date: 30.03.2019

Ref. No. EGSPEC/MTR/3875/2019

## SIEVE ANALYSIS OF FINE AGGREGATE (M-SAND) (IS:383-2016)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Date of tested: 25.03.2019

Requested on : 24.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

### SAMPLE-01

Total weight (g): 1245.5

Sieve Size	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits [Zone-II]
10 mm	0.0	0.0	0.0	100.0	100
4.75 mm	35.5	35.5	2.9	97.1	90-100
2.36 mm	124.5	160.0	12.8	87.2	75-100
1.18 mm	265.2	425.2	34.1	65.9	55-90
600 microns	244.2	669.4	53.7	46.3	35-59
300 microns	285.5	954.9	76.7	23.3	8-30
150 microns	184.5	1139.4	91.5	8.5	0-10
75 microns	75.5	1214.9	97.5	2.5	
Pan	30.6				

Fineness Modulus: 2.717 (Limit: 2.0 - 3.5)

Zone: II

*AM*  
30-3-2019



*Dr. R. Sivakumar*  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head,  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

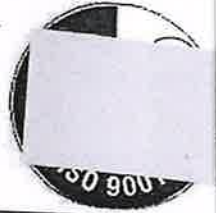


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## SAMPLE-02

Total weight (g): 1177.8

Sieve Size	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits [Zone-II]
10 mm	0.0	0.0	0.0	100.0	100
4.75 mm	22.4	22.4	1.9	98.1	90-100
2.36 mm	133.2	155.6	13.2	86.8	75-100
1.18 mm	224.9	380.5	32.3	67.7	55-90
600 microns	260.3	640.8	54.4	45.6	35-59
300 microns	251.5	892.3	75.8	24.2	8-30
150 microns	182.2	1074.5	91.2	8.8	0-10
75 microns	80.9	1155.4	98.1	1.9	
Pan	22.4				

Fineness Modulus: 2.688 (Limit: 2.0 - 3.5)

Zone: II

1. Fineness Modulus : 2.703 (Limit: 2.0 - 3.5) Zone: II  
2. Silt Content : 2.2 % < 3.0%

Supervised by

Note:

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3. The results relate only to the samples tested



Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.





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(Affiliated to Anna University Chennai)



**Consultancy services**  
(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3876/2019

Date: 30.03.2019

**SIEVE ANALYSIS OF COARSE AGGREGATE**  
(IS:383-2016)

To  
The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 25.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

**SIEVE ANALYSIS OF 20mm (Single Size)**

Total weigh (g) : 9227

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0.0	100.0	100
20	792	792	8.6	91.4	85 - 100
10	7611	8403	91.1	8.9	0 - 20
4.75	722	9125	98.9	1.1	0 - 5
Pan	102				

**SIEVE ANALYSIS OF 20mm (Single Size)**

Total weight (g) : 8359

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0.0	100.0	100
20	926	926	11.1	88.9	85 - 100
10	6529	7455	89.2	10.2	0 - 20
4.75	838	8293	99.2	0.8	0 - 5
Pan	66				

AM 30-3-2019



Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

Grams : 'EGSP' Personal : 251114, Office : 251112, Chairman : 224522, Hostel : 251348, Fax : 251114  
Web site : www.egspec.org





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**SIEVE ANALYSIS OF 12.5mm (Single Size)**

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
16	0	0	0.0	100.0	100
12.5	550	550	7.1	92.9	85 - 100
10	3734	4284	55.3	44.7	0 - 45
4.75	3301	7585	97.9	2.1	0 - 10
Pan	165				

Total weigh (g) : 7750

**SIEVE ANALYSIS OF 12.5mm (Single Size)**

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
16	0	0	0.0	100.0	100
12.5	422	422	5.3	94.7	85 - 100
10	4070	4492	56.1	43.9	0 - 45
4.75	3328	7820	97.7	2.3	0 - 10
Pan	185				

Total weight (g) : 8005

**Combined Aggregate Sample-01**

**SIEVE ANALYSIS OF COBINED AGGREGATE (20mm + 12.5mm) (Nominal Size)**  
[20mm:45%] : [12.5mm (55%)]

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0	100.00	100
20	483	483	3.2	96.8	95 - 100
10	10043	10526	70.2	29.8	25 - 55
4.75	4267	14793	98.6	1.4	0 - 10
Pan	207				

Total weigh (g) : 15000

*Am*  
30.3.2017



*Dr*  
**Dr. R. SIVAKUMAR, M.E.**  
Professor & Head  
Department of Civil Engineering



**E.G.S. PILLAY ENGINEERING COLLEGE**  
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Combined Aggregate Sample-02

**SIEVE ANALYSIS OF COBINED AGGREGATE (20mm + 12.5mm) (Nominal Size)**

[20mm:45%] : [12.5mm (55%)]

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0	100.00	100
20	649	649	4.3	95.7	95 - 100
10	9517	10166	67.8	32.2	25 - 55
4.75	4566	14732	98.2	1.8	0 - 10
Pan	268				

**SIEVE ANALYSIS OF ALL-IN-AGGREGATE-01**

(CA:FA) [Coarse aggregate: 58% Fine aggregate: 42%]

Blending: 20mm:26.1% 12.5mm: 31.9% + M-Sand: 42%

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0.0	100.0	100
20	462	462	2.3	97.7	95 - 100
4.75	10904	11366	56.8	43.2	30 - 50
600 microns	4476	15842	79.2	20.8	10 - 35
150 microns	3471	19343	96.7	3.3	0 - 6
Pan	657				

*A.M.*  
30.3.2019



*[Signature]*  
 Dr. R. SIVAKUMAR, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagapattinam.



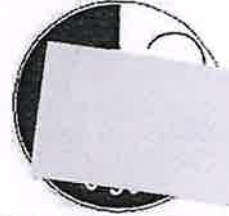


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## SIEVE ANALYSIS OF ALL-IN-AGGREGATE-02

(CA:FA) [Coarse aggregate: 58% Fine aggregate: 42%]

Blending: 20mm:26.1% 12.5mm: 31.9 % + M-Sand: 42%

Total weigh (g) : 20000

Sieve Size (mm)	Weight retained (g)	Cumulative Weight retained (g)	Cumulative % of weight retained	% of Passing	Specification Limits
40	0	0	0.0	100.0	100
20	566	566	2.8	97.2	95 - 100
4.75	11055	11621	58.1	41.9	30 - 50
600 microns	4182	15803	79.0	21.0	10 - 35
150 microns	3616	19419	97.1	2.9	0 - 6
Pan	581				

*A.M. 30.3.2019*  
Supervised by

Note:

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*R. 30.3.14*  
Head of the Dept.  
Dr. R. SIVAKUMAR M.E. Ph.D.  
Professor & Head  
Department of Civil Engineering  
E.G.S. Pillay Engineering College,  
Nagapattinam.



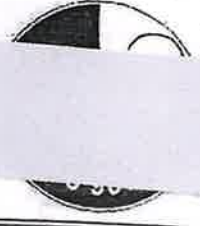
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Consultancy services  
(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3877/2019

Date: 30.03.2019

## AGGREGATE IMPACT VALUE

(IS: 2386 Part-4)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 25.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

Description			1	2	3
Weight of Surface Dry Sample passing IS Sieve 12.5 mm but retained on IS Sieve 10.0 mm	W <sub>1</sub>	g	371.5	379.2	368.8
Weight of Fraction Passing I S Sieve 2.36 mm after the test	W <sub>2</sub>	g	83.5	82.1	80.9
Weight of Fraction Retained on IS Sieve 2.36 mm after the test	W <sub>3</sub>	g	287.7	296.7	287.6
$W_4 = W_1 - (W_2 + W_3)$		g	0.3	0.4	0.3
$A.I.V (%) = (W_2 / W_1) \times 100$		%	22.48	21.65	21.94
Average Value of A.I.V. (%)		%	22.02		

If  $W_4 > 1$  g, Test is to be discarded

#Aggregate Impact Value: 22.02% (< 45 % for Concrete works)

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Head of the Dept.

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Nagapattinam:





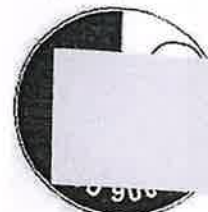
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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3879/2019

Date: 30.03.2019

### FLAKINESS & ELONGATION INDEX

(IS: 2386 Part-1)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 27.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

I.S Sieve size (mm)		Flakiness Index [1]		Elongation Index [2]	
Passing	Retained	Total Wt. of aggregate retained on sieves [A] (g)	Wt. of aggregate passing through thickness gauge [B] (g)	Wt. of aggregate retained on thickness gauge [C] (g)	Wt. of aggregate retained on length gauge after retained on thickness gauge [D] (g)
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	322	0	0	0
20.0	16.0	2005	198	322	43
16.0	12.5	2379	256	1807	288
12.5	10.0	1969	287	2123	308
10.0	6.3	2952	408	1682	121
<b>Total</b>		<b>9627</b>	<b>1149</b>	<b>8478</b>	<b>1346</b>

- 1 Flakiness Index  $(B/A) \times 100$  : 11.94% < 15%
- 2 Elongation Index  $(D/C) \times 100$  : 15.88%
- 3 Combined FI & EI (1+2) : 27.81%

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**Consultancy services**  
 (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3880/2019

Date: 30.03.2019

**WATER TEST RESULTS**  
 (IS:456:2000)

To  
 The Assistant Engineer (Roads)  
 P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Source of Sample : Borewell water @ Athipadugai village

Date of tested: 27.03.2019

S. No.	Test Parameters	Requirement as IS 456:2000	Results Obtained
1	General	Water used for mixing and curing shall be clean and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other sub stains that may be deleterious to concrete or steel	Satisfactory
2	pH value	≥6	7.1
3	ml. of 0.02 N NaOH required to neutralize 100 ml water using phenolphthalein indicator	5 max	1.20
4	ml of 0.02 n H <sub>2</sub> SO <sub>4</sub> required to neutralize 100 ml of water using mixed indicator	25 Max	21.10
5	Organic solids, mg/l	200 Max	< 18
6	Inorganic solids, mg/l	3000 Max	1925
7	Sulphates as SO <sub>3</sub> , mg/l	400 Max	220
8	Chlorides as Cl, mg/l:		
	a. for concrete embedded steel	2000 Max	
	b. for reinforced concrete work	500 Max	458
9	Suspended solids, mg/l	2000 Max	< 29

As furnished by the customer

*A. M. G. S. M. H.*  
 Supervised by

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*R. Sivakumar*  
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**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
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(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3881/2019

Date 30.03.2019

**SPECIFIC GRAVITY AND WATER ABSORPTION TEST**  
(IS: 2386 Part-3)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 25.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

[20MM]

S.No.	Description		I	II	III	Avg.
1.	Weight of saturated surface dried sample in air (SSD)	(g)	2575.2	2440.2	2370.8	
2.	Weight of oven dried sample in air	(g)	2565.2	2431.9	2362.2	
3.	Weight of sample in water	(g)	1665.5	1577.7	1535.4	
4.	Water Absorption	$\frac{(1) - (2)}{(2)} \times 100$ (%)	0.390	0.341	0.364	0.365
5.	Bulk specific gravity, (SSD)	$\frac{(1)}{(1) - (3)}$	2.831	2.829	2.838	2.833

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A.M. 20-3-2019

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**Consultancy services**  
 (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3884/2019

Date: 30.03.2019

**SPECIFIC GRAVITY AND WATER ABSORPTION TEST**  
 (IS: 2386 Part-3)

To

The Assistant Engineer (Roads)  
 P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL - Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

Date of tested: 25.03.2019

[12.5MM]

S.No.	Description		I	II	III	Avg.
1.	Weight of saturated surface dried sample in air (SSD)	(g)	1624.2	1870.5	1722.1	
2.	Weight of oven dried sample in air	(g)	1615.2	1861.9	1715.0	
3.	Weight of sample in water	(g)	1047.1	1207.5	1110.4	
4.	Water Absorption	$\frac{(1) - (2)}{(2)} \times 100$ (%)	0.557	0.462	0.418	0.478
5.	Bulk specific gravity, (SSD)	$\frac{(1)}{(1) - (3)}$	2.814	2.821	2.815	2.817

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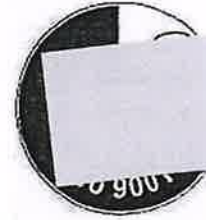
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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3885/2019

Date: 30.03.2019

### SPECIFIC GRAVITY AND WATER ABSORPTION TEST

(IS: 2386 Part-3)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 25.03.2019

Source of Sample : Stock yard @ Best Blue Metal, Karur.

#### [M-SAND]

S.No.	Description		I	II	III	Avg.
1.	Weight of saturated surface dried sample in air (SSD)	(g)	535.6	555.2	527.4	
2.	Weight of oven dried sample in air	(g)	530.5	549.2	522.1	
3.	Weight of Pycnometer bottle filled with water	(g)	1608.8	1608.8	1608.8	
4.	Weight of Pycnometer bottle + water + sample	(g)	1948.5	1960.3	1942.5	
5.	Water Absorption	$\frac{(1) - (2)}{(2)} \times 100$ (%)	0.961	1.092	1.015	1.023
6.	Bulk specific gravity, (SSD)	$\frac{(1)}{(1) + (3) - (4)}$	2.734	2.726	2.723	2.727

Supervised by  
A.M. 30.3.2019

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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3886/2019

Date: 30.03.2019

### SPECIFIC GRAVITY OF CEMENT

(IS: 2386 Part-3)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of tested: 27.03.2019

Brand of Cement : Coromandel Grade of Cement: OPC-53 Week No: 10<sup>th</sup>

### [CEMENT]

S. No.	Description			I	II	Average
1.	Weight of Empty Specific Gravity Bottle	W1	(g)	54.92	54.92	
2.	Weight of Specific Gravity Bottle + Kerosene	W2	(g)	133.92	133.92	
3.	Weight of Specific Gravity Bottle + Half filled with Cement	W3	(g)	84.73	85.16	
4.	Weight of Specific Gravity Bottle + Cement + Kerosene	W4	(g)	156.15	156.48	
5.	Specific Gravity: $\frac{(W3 - W1)}{(W2 - W1) - (W4 - W3)} \times \text{Sp. Gravity of Kerosene}$ (Kerosene Sp. Gravity: 0.8)			3.146	3.150	3.148

*A. M. 30-3-2019*  
Supervised by

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*[Signature]*  
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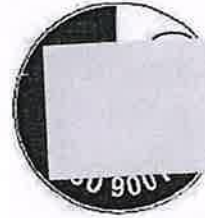
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## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3897/2019

Date: 27.04.2019

### CEMENT TEST RESULTS

(IS: 269: 2015)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Date of Cement tested: 27.03.2019

Mortar Cubes Casted Date: 30.03.2019

Date of Mortar cubes testing(3days): 02.04.2019, (7days): 06.04.2019, (28days): 27.04.2019.

Brand of Cement: Coromandel

Grade of Cement: OPC-53

Week No: 10<sup>th</sup>

	<u>Test Results</u>	<u>Specification Limits</u> (IS: 269: 2015)
1. Normal Consistency of Cement	(%) : 31.5 %	-
2. <u>Setting Time</u>		
Initial Setting Time	(minutes) : 135	Min. 30
Final Setting Time	(minutes) : 315	Max. 600
3. Fineness of Cement (By Drying Sieve)	(%) : 2.95	10%
4. Soundness of Cement (Le-Chatelier Method)	(mm) : 3.22	Max. 10 mm
5. Specific Gravity	: 3.148	
6. <u>Compressive Strength of Cement Mortar Cubes</u>		
3 days (72 ± 1 h, Min)	Mpa : 32.97	Min, 27 Mpa
7 days (168 ± 2 h, Min)	Mpa : 44.07	Min, 37 Mpa
28 days (672 ± 4 h, Min)	Mpa : 58.52	Min, 53 Mpa

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3. The results relate only to the samples tested.

**Consultancy services**  
(Department of Civil Engineering)

Ref. No. EGSPEC/MT/3891/2019

Date: 02.04.2019

## COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Brand of Cement : Coromandel

Grade of Cement: OPC-53

Week No: 10<sup>th</sup>

Date of Casted : 30.03.2019

Date of tested (3 days): 02.04.2019

Size of Mortar Cube: 7.06cm x 7.06cm x 7.06cm Volume of cube: 351.896cc Area of Cube: 49.84cm<sup>2</sup>

S. No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	1	836	2.376	3	172	34.51	32.97	
2	2	842	2.393	3	156	31.30		
3	3	833	2.367	3	165	33.11		

Average compressive Strength: 32.97 N/mm<sup>2</sup> [Minimum: 27 Mpa.]

# 3 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

*A.M. 02.04.2019*  
Supervised by



*[Signature]*  
Dr. Head of the Dept. M. S. P. D.  
Professor & Head  
Department of Civil Engineering  
E.G.S. Pillay Engineering College  
Nagapattinam

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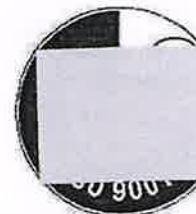
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## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3892/2019

Date: 06.04.2019

### COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Brand of Cement : Coromandel

Grade of Cement: OPC-53

Week No: 10<sup>th</sup>

Date of Casted : 30.03.2019

Date of tested (7 days): 06.04.2019

Size of Mortar Cube: 7.06cm x 7.06cm x 7.06cm Volume of cube: 351.896cc Area of Cube: 49.84cm<sup>2</sup>

S. No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	4	846	2.404	7	211	42.34	44.07	
2	5	837	2.379	7	229	45.95		
3	6	840	2.387	7	219	43.94		

Average compressive Strength: **44.07 N/mm<sup>2</sup>** [Minimum: 37 Mpa.]

# 7 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

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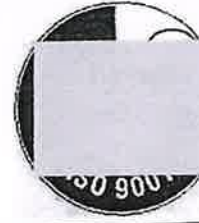
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## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MT/3896/2019

Date: 27.04.2019

### COMPRESSIVE STRENGTH OF CEMENT MORTAR MIX CUBES (IS: 4031 Part -7)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Brand of Cement : Coromandel Grade of Cement: OPC-53 Week No: 10<sup>th</sup>  
Date of Casted : 30.03.2019 Date of tested (28 days): 27.04.2019

Size of Mortar Cube: 7.06cm x 7.06cm x 7.06cm Volume of cube: 351.896cc Area of Cube: 49.84cm<sup>2</sup>

S. No.	Mortar Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	7	841	2.390	28	292	58.59	58.52	
2	8	847	2.407	28	284	56.98		
3	9	838	2.381	28	299	59.99		

Average compressive Strength: 58.52 N/mm<sup>2</sup> [Minimum: 53 Mpa.]

# 3 days Cement Mortar Cubes Compressive Strength test results are within the specification limits.

*A. J. M. 27-04-2019*  
Supervised by

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*R. S. Sivakumar*  
Head of the Dept.

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(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3888/2019

Date: 01.04.2019

### CONCRETE MIX DESIGN [PILE M30] (IS 10262-2019 & IS 456-2000)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Concrete Mix Design date: 31.03.2019

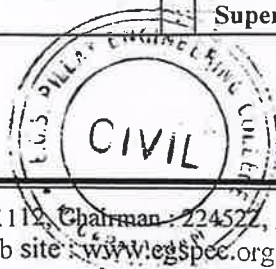
#### SOURCES OF MATERIALS

1	Coarse aggregate: 20mm & 12.5mm	: Best Blue Metal, Karur
2	Fine aggregate: M-Sand	: Best Blue Metal, Karur
3	Cement brand	: Dalmia Cement
4	Admixture brand	: Sika India Pvt. Ltd.,

#### DESIGN STIPULATIONS

1	Grade Designation	: PILE M30
2	Type of cement	: OPC-53 Grade
3	Max. Nominal Size of aggregate	: 20mm
4	Minimum Cement Content	: 400 Kg/cu.m
5	Maximum Water cement ratio	: 0.40
6	Workability	: 150mm - 20mm
7	Exposure conditions	: Moderate
8	Maximum temperature of concrete at the time of placing	: 40°C
9	Method of transporting / placing	: Transit mixture / Self Loading Mixer
10	Early age strength requirement (if reqd.)	: Not Applicable
11	Type of aggregate	: Angular
12	Maximum Cement content	: 450 Kg/Cum
13	Type of admixture	: Super plasticizer cum retarder

A-AM 01.04.2019



Dr. R. SIVAKUMAR M.E., Ph.D.  
Professor & Head

Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



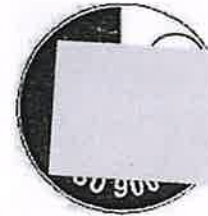
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## TEST DATA FOR MATERIALS

Proportion of Coarse aggregate : Fine aggregate			
1	% of C/A to the total weight of aggregate	:	58%
2	% of F/A to the total weight of aggregate	:	42%
Proportions in C/A:			
3	% of 20 mm	:	45%
4	% of 12.5 mm	:	65%
5	Specific gravity of 20 mm	:	2.833
6	Specific gravity of 12.5 mm	:	2.817
7	Combined specific gravity of C/A	:	2.824
8	Water absorption of 20 mm	:	0.365%
9	Water absorption of 12.5 mm	:	0.478%
10	Free surface moisture of 20 mm	:	0.00%
11	Free surface moisture of 12.5 mm	:	0.00%
12	Specific gravity of M-Sand	:	2.727
13	Water absorption of M-Sand	:	1.023%
14	Free surface moisture of M-Sand	:	1.20%
15	Specific Gravity of Cement	:	3.148
16	Specific Gravity of Admixture	:	1.18

## MIX CALCULATION

1	Target Mean strength	:	38.25 N/mm <sup>2</sup>
2	Water Cement ratio	:	0.39
3	Mass of cement	:	430.000 Kg
4	Mass of water	:	167.700 Kg
5	Dosage of chemical admixture	:	1.25%
6	Mass of chemical admixture	:	5.375 Kg

*Handwritten signature and date: A.M. 01.04.2019*



*Handwritten signature of Dr. R. Sivakumar*

Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head

Department of Civil Engineering,  
E.G.S. Pillay Engineering College  
Nagapattinam.





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<u>VOLUME OF CONCRETE</u>		:	1.000 Cum
1	Volume of cement	:	0.137 Cum
2	Volume of Water	:	0.168 Cum
3	Volume of Chemical admixture	:	0.005 Cum
4	Volume of all-in-aggregate	:	0.691 Cum
5	Mass of coarse aggregate	:	1132 Kg
	Mass of 20mm	:	509 Kg
	Mass of 12.5mm	:	623 Kg
6	Mass of Fine aggregate (M-Sand)	:	792 Kg

## MIX PROPORTION

Ingredients	Per m <sup>3</sup> in SSD Condition	Per bag of cement in SSD Condition
	Kg.	Kg.
Cement	430	50.0
Water	168	22.0
Fine aggregate (M-Sand)	792	92.0
20mm	509	59.2
12.5mm	623	72.4
Chemical admixture	5.375	0.63

Proportion:	Cement	F/A	C/A	Water Cement ratio
	1	1.84	2.63	0.39

## Slump Retention

	Initial	30'	60'	90'
Slump observation(mm)	Collapse	Collapse	205,210	155,162
Date of Casting	31.03.2019			
No. of Cubes casted	12 No's			

Temperature of Mix: 31.0 °C

Observations: Mix is cohesive

Workability: Good

Supervised by

Note:

- Any correction without attestation will invalidate in this certificate.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.

Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



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Consultancy services  
(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3889/2019

Date: 02.04.2019

## CONCRETE MIX DESIGN [M30 RCC] (IS 10262-2019 & IS 456-2000)

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Concrete Mix Design date: 01.04.2019

### SOURCES OF MATERIALS

1	Coarse aggregate: 20mm & 12.5mm	: Best Blue Metal, Karur
2	Fine aggregate: M-Sand	: Best Blue Metal, Karur
3	Cement brand	: Dalmia Cement
4	Admixture brand	: Sika India Pvt. Ltd.,

### DESIGN STIPULATIONS

1	Grade Designation	: M30 RCC
2	Type of cement	: OPC-53 Grade
3	Max. Nominal Size of aggregate	: 20mm
4	Minimum Cement Content	: 320 Kg/cu.m
5	Maximum Water cement ratio	: 0.45
6	Workability	: 25 - 75mm
7	Exposure conditions	: Moderate
8	Maximum temperature of concrete at the time of placing	: 40°C
9	Method of transporting / placing	: Transit mixture / Self Loading Mixer
10	Early age strength requirement (if reqd.)	: Not Applicable
11	Type of aggregate	: Angular
12	Maximum Cement content	: 450 Kg/Cum
13	Type of admixture	: Super plasticizer cum retarder

AJK 02.04.2019



Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.





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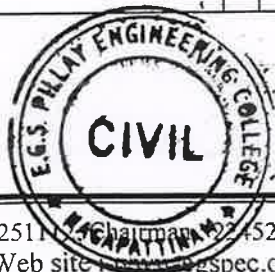
## TEST DATA FOR MATERIALS

Proportion of Coarse aggregate : Fine aggregate			
1	% of C/A to the total weight of aggregate	:	58%
2	% of F/A to the total weight of aggregate	:	42%
<b>Proportions in C/A:</b>			
3	% of 20 mm	:	45%
4	% of 12.5 mm	:	65%
5	Specific gravity of 20 mm	:	2.833
6	Specific gravity of 12.5 mm	:	2.817
7	Combined specific gravity of C/A	:	2.824
8	Water absorption of 20 mm	:	0.365%
9	Water absorption of 12.5 mm	:	0.478%
10	Free surface moisture of 20 mm	:	0.00%
11	Free surface moisture of 12.5 mm	:	0.00%
12	Specific gravity of M-Sand	:	2.727
13	Water absorption of M-Sand	:	1.023%
14	Free surface moisture of M-Sand	:	1.20%
15	Specific Gravity of Cement	:	3.148
16	Specific Gravity of Admixture	:	1.18

## MIX CALCULATION

1	Target Mean strength	:	38.25 N/mm <sup>2</sup>
2	Water Cement ratio	:	0.44
3	Mass of cement	:	405.000 Kg
4	Mass of water	:	178.200 Kg
5	Dosage of chemical admixture	:	0.70%
6	Mass of chemical admixture	:	2.835 Kg

*A.M.*  
02.04.2019



Dr. R. SIVAKUMAR, M.E., Ph.D.  
 Professor & Head

Department of Civil Engineering,  
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 Nagapattinam.





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<u>VOLUME OF CONCRETE</u>		:	1.000 Cum
1	Volume of cement	:	0.129 Cum
2	Volume of Water	:	0.178 Cum
3	Volume of Chemical admixture	:	0.002 Cum
4	Volume of all-in-aggregate	:	0.691 Cum
5	Mass of coarse aggregate	:	1131 Kg
	Mass of 20mm	:	509 Kg
	Mass of 12.5mm	:	622 Kg
6	Mass of Fine aggregate (M-Sand)	:	791 Kg

## MIX PROPORTION

Ingredients	Per m <sup>3</sup> in SSD Condition	Per bag of cement in SSD Condition
	Kg.	Kg.
Cement	405	50.0
Water	178	22.0
Fine aggregate (M-Sand)	791	97.7
20mm	509	62.9
12.5mm	622	76.8
Chemical admixture	2.835	0.35

Proportion:	Cement	F/A	C/A	Water Cement ratio
		1	1.95	2.79

## Slump Retention

	Initial	30'	60'	90'
Slump observation(mm)	168,175	142,135	108,105	74,70
Date of Casting	01.04.2019			
No. of Cubes casted	12 No's			

Temperature of Mix: 31.9 °C

Observations: Mix is cohesive

Workability: Good

*A.A.M. 02.04.2019*  
Supervised by

Note:

- Any correction without attestation will invalidate this certificate
- Materials were supplied by the job requestor
- The results relate only to the samples tested.



*R. Sivakumar*  
Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



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## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3891/2019

Date: 07.04.2019

### COMPRESSIVE STRENGTH OF CONCRETE MIX DESIGN CUBES [PILE M30] [As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019 Concrete Mix Design date: 31.03.2019

Grade of Concrete : PILE M30 [Nominal Size of Aggregate: 20mm] Cement Content: 430 Kg/m<sup>3</sup>

Date of Cubes casting: 31.03.2019 Date of Testing (7 days): 07.04.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup> Target Mean Strength (28 days): 38.25 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm Volume of cube: 3375cc Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	1	8571	2.540	7	755	33.56	33.01	
2	2	8678	2.571	7	770	34.22		
3	3	8609	2.551	7	703	31.24		
4	7	8569	2.539	7	678	30.13	31.53	
5	8	8675	2.570	7	750	33.33		
6	9	8631	2.557	7	700	31.11		

Average compressive Strength: 32.27 N/mm<sup>2</sup> [Target mean strength for 7days:  $\geq$  25.63 N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are awaited.

*A.M. 07.04.2019*  
Supervised by

Note:

- Any correction without attestation will invalidate in this certificate
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.

*[Signature]*  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.





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## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3902/2019

Date: 28.04.2019

## COMPRESSIVE STRENGTH OF CONCRETE MIX DESIGN CUBES [PILE M30] [As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Concrete Mix Design date: 31.03.2019

Grade of Concrete : PILE M30 [Nominal Size of Aggregate: 20mm] Cement Content: 430 Kg/m<sup>3</sup>

Date of Cubes casting: 31.03.2019

Date of Testing (28 days): 28.04.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup>

Target Mean Strength (28 days): 38.25 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	4	8666	2.568	28	956	42.49	42.61	
2	5	8539	2.530	28	970	43.11		
3	6	8605	2.550	28	950	42.22		
4	10	8557	2.535	28	933	41.47	42.15	
5	11	8587	2.544	28	967	42.98		
6	12	8598	2.548	28	945	42.00		

Average compressive Strength: **42.38** N/mm<sup>2</sup> [Target mean strength for 28days:  $\geq 38.25$  N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are within the specification limits.

Supervised by  
*A. M. S. S. S. S.*

Note:

- Any correction without attestation will be void.
- Materials were supplied by the job requester.
- The results relate only to the samples tested.



Head of the Dept.  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.





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## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3892/2019

Date: 08.04.2019

### COMPRESSIVE STRENGTH OF CONCRETE MIX DESIGN CUBES [M30 RCC]

[As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019 Concrete Mix Design date: 01.04.2019

Grade of Concrete : M30 RCC [Nominal Size of Aggregate: 20mm] Cement Content: 405 Kg/m<sup>3</sup>

Date of Cubes casting: 01.04.2019 Date of Testing (7 days): 08.04.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup> Target Mean Strength (28 days): 38.25 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm Volume of cube: 3375cc Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	1	8596	2.547	7	793	35.24	35.14	
2	2	8557	2.535	7	769	34.18		
3	3	8671	2.569	7	810	36.00		
4	7	8625	2.556	7	779	34.62	34.46	
5	8	8601	2.548	7	792	35.20		
6	9	8588	2.545	7	755	33.56		

Average compressive Strength: 34.80 N/mm<sup>2</sup> [Target mean strength for 7days:  $\geq 25.63$  N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are awaited.

Supervised by

Note:

- Any correction without attestation will invalidate this certificate
- Materials were supplied by the job requestor.
- The results relate only to the samples tested.



Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



# E.G.S. PILLAY ENGINEERING COLLEGE

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(Affiliated to Anna University Chennai)



## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3903/2019

Date: 29.04.2019

### COMPRESSIVE STRENGTH OF CONCRETE MIX DESIGN CUBES [M30 RCC]

[As per IS:516]

To

The Assistant Engineer (Roads)  
P.W.D. Karaikal District.

Name of Work : PW-AE(R)-KKL – Construction of bridge across river Arasalar at Athipadugai village connecting Arulmozhidevan village in Thirunallar cluster, Karaikal District.

Reference : 1642/PW/SDR/KKL-2019-20 Dated: 23.03.2019

Requested on : 24.03.2019

Concrete Mix Design date: 29.01.2019

Grade of Concrete : M30 RCC [Nominal Size of Aggregate: 20mm] Cement Content: 405 Kg/m<sup>3</sup>

Date of Cubes casting: 01.04.2019

Date of Testing (28 days): 29.04.2019

Characteristic Compressive Strength: 30 N/mm<sup>2</sup> Target Mean Strength (28 days): 38.25 N/mm<sup>2</sup>

Size of Cube: 15cm x 15cm x 15cm

Volume of cube: 3375cc

Area of Cube: 225Cm<sup>2</sup>

S. No.	Cube No.	Weight of Cube g	Density g/cc	Age in days	Failure Load KN	Compressive Strength (N/mm <sup>2</sup> )	Average Compressive Strength (N/mm <sup>2</sup> )	Remarks
1	4	8577	2.541	28	990	44.00	44.41	
2	5	8672	2.569	28	1033	45.91		
3	6	8578	2.542	28	975	43.33		
4	10	8679	2.572	28	956	42.49	43.16	
5	11	8598	2.548	28	988	43.91		
6	12	8659	2.566	28	969	43.07		

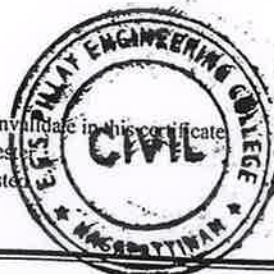
Average compressive Strength: 43.79 N/mm<sup>2</sup> [Target mean strength for 28days:  $\geq 38.25$  N/mm<sup>2</sup>]

# 28 days Cubes Compressive Strength test results are within the specification limits.

*A. M. 29.04.2019*  
Supervised by

Note:

1. Any correction without attestation will invalidate this certificate
2. Materials were supplied by the job requester
3. The results relate only to the samples tested



*R. S. 29.04.19*  
Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering  
E.G.S. Pillay Engineering College,  
Nagapattinam.

**Public Works Department**  
**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2020/ Dated: 04.02.2020**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – **Lab testing – Wet Mix Macadam (WMM) samples- (3 samples)-** Regarding.


Sir,

With reference to the above subject, we would like to submit **Wet Mix Macadam (WMM) Samples- 3 No.s, collected from Stock yard @ Sithaimoor Railway Bride.**

**Source of Material: Sri Murugan Metals, Padalur**

Kindly conduct the following necessary tests on the above said samples may please be tested as per the above and reported its suitability against as per MoRT&H V Table-400-12& Table-400-13 (Wet Mix Macadam) at the earliest.

Encl: As stated above

  
**Executive Engineer, PWD/WRD.,,**  
Project Implementation Unit-II,  
Nagapattinam.

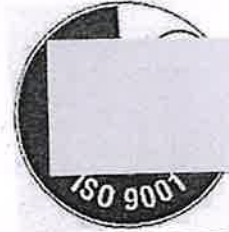




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NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)  
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(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

Date: 10.02.2020

Ref. No. EGSPEC/MTR/3387/2020

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lr.No: DB/DO/ADB/2020/ Dated: 03.02.2020
3. Name of the Work : ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : **Wet Mix Macadam (WMM) samples – 3 No.s**  
(Stockyard & Sithaimoor Railway Bridge)
5. Sample received : 04.02.2020
6. Sample test date : 05.02.2020
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

Encl: Test Report

Head of the Department

**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
 OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002

Bill No  
 Name  
 Roll No  
 YEAR

1040  
 W.R.O /NAGAI

RECEIPT

Date

Course

Mode of Payment

: 10-Feb-2011

: Cash

Fees Type	Amount
TESTING BILL	19400
Rupees: nineteen Thousand four Hundred Fifty Only	19400.00

AMOUNT WILL NOT BE REFUNDED



Payee's Signature and Name

Accountant

Cashier

Executive Engineer, PWD/WRD.,  
 Project Implementation Unit-II,  
 Nagapattinam.

## TEST REPORT ON SOIL ANALYSIS

Project Name: Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km & Lawford straight cut L.S 0.0 to 3.90 Km.

Soil Samples collected @ L.S 154.200 Km to 154.650 Km [Left Bank], & L.S 155.700 Km to 156.300 Km [Left Bank] & 156.300 Km to 156.750 Km [Left Bank]

Sample No.	Sample Location	Side	Free Swell Index (%)	Grain Size Analysis					Classification of Soil as per IS: 1498-1970	Atterberg's Limit			Modified Proctor		Remarks
				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Total Fineness		LL (%)	PL (%)	PI (%)	MDD (g/cc)	OMC (%)	
1	154.400	Left Bank	26.32	1	46	30	23	51	ML-CL	24.10	18.05	6.05	1.797	14.13	
2	156.150	Left Bank	25.00	0	44	32	24	56	ML-CL	25.13	18.25	6.88	1.792	14.25	
3	156.400	Left Bank	29.41	0	44	29	27	56	CL	25.55	17.42	8.13	1.782	15.20	
4	156.650	Left Bank	30.00	0	45	27	27	54	ML-CL	24.33	18.38	5.95	1.807	13.80	

Note: As furnished by the customer, the results related to the item tested

  
 Supervised by

  
**Dr. Mesha Kumar, M.E., Ph.D.**  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagappattinam.



**Public Works Department**  
**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2019/ Dated: 28.11.2019**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – **Lab testing – Granular Sub-Base (GSB) Grading-v samples - (3 samples)-** Regarding.


Sir,

With reference to the above subject, we would like to submit **GSB Samples, collected from Stock yard @ Alangudi Regulator.**

**Source of Material: Sri Murugan Metals, Padalur**

Kindly conduct the following necessary tests on the above said samples may please be tested as per the above and reported its suitability against as per MoRT&H V Table-400-1 Grading-V & Table-400-2 (Granular Sub-Base) at the earliest.

Encl: As stated above

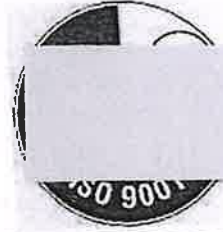
  
**Executive Engineer, PWD/WRD.,,**  
Project Implementation Unit-II,  
Nagapattinam.



# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)  
(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)  
(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

Date: 06.12.2019

Ref. No. EGSPEC/MTR/3319/2019

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lr.No: DB/DO/ADB/2019/ Dated: 28.11.2019
3. Name of the Work : **ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction**  
works on Harichandranathi– from LS 121.260 km to 160.210 Km &  
Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : **Granular Sub Base (GSB Grading V) samples – 3 No.s**  
(Stockyard & Alangudi Regulator)
5. Sample received : 28.11.2019
6. Sample test date : 30.11.2019
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

Encl: Test Report

  
Head of the Department

**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

**EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
 OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**

**RECEIPT**

Bill No : 946  
 Name : W.R.O /NAGAI  
 Roll No :  
 YEAR :  
 Date : 06-DEC-2019  
 Course :  
 Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	24250
Rupees : Twenty four Thousand two Hundred Fifty Only	
	24250.00

**AMOUNT WILL NOT BE REFUNDED**

Payee's Signature and Name

Accountant



Cashier

Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagappattinam.



## TEST REPORT ON SOIL ANALYSIS

from L.S 121.260 Km to 160.200 Km &

Project Name: Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km & Lawford straight cut L.S 0.0 to 3.90 Km.

Soil Samples collected @ - L.S 148.400 Km to 149.200 Km [Left Bank], & L.S 149.650 Km to 150.800 Km [Left Bank]

Sample No.	Sample Location	Side	Free Swell Index (%)	Grain Size Analysis				Classification of Soil as per IS: 1498-1970	Atterberg's Limit			Modified Proctor		Remarks	
				Gravel (%)	Sand (%)	Silt (%)	Clay (%)		Total Fineness	LL (%)	PL (%)	PI (%)	MDD (g/cc)		OMC (%)
1	148.700	Left Bank	33.33	0	46	27	27	54	CL	25.89	17.49	8.40	1.827	14.55	
2	149.050	Left Bank	30.00	0	47	25	28	53	CL	24.98	17.87	7.11	1.815	14.30	
3	149.950	Left Bank	31.59	1	48	31	20	51	ML-CL	24.57	18.52	6.05	1.807	13.75	
4	150.350	Left Bank	38.89	1	47	28	24	52	CL	26.77	17.35	9.42	1.814	15.40	
5	150.600	Left Bank	30.00	0	49	30	21	51	ML-CL	24.66	18.13	6.53	1.802	15.15	

Note: As furnished by the customer, the results related to the item tested

*A. Anand*  
Supervised by

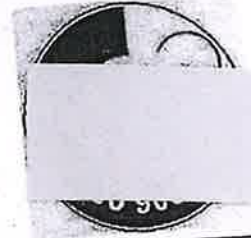
*R. Sivakumar*  
Head of the Dept.  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagappattinam.



# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)  
(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)  
(Affiliated to Anna University Chennai)




## Consultancy services (Department of Civil Engineering)

Date: 06.12.2019

Ref. No. EGSPEC/MTR/3319/2019

1. Name of the Client : **The Executive Engineer.,  
Project Implementation Unit-II  
Nagapattinam.**
2. Client Reference No: Lr.No: DB/DO/ADB/2019/ Dated: 28.11.2019
3. Name of the Work : **ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction  
works on Harichandranathi– from LS 121.260 km to 160.210 Km &  
Lawford Straight Cut from LS 0.00 Km to 3.900 Km.**
4. Sample details : **Granular Sub Base (GSB Grading V) samples – 3 No.s  
(Stockyard & Alangudi Regulator)**
5. Sample received : 28.11.2019
6. Sample test date : 30.11.2019
7. Test conducted by : **Mr. A. Arjunan. Assistant Professor.**

Encl: Test Report

  
Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



# TEST REPORT ON SOIL ANALYSIS

**TEST REPORT ON SOIL ANALYSIS**  
 from L.S 121.260 Km to 160.200 Km &

works on Harichandranathi from L.S 121.260 Km to 160.200 Km [Left Bank]

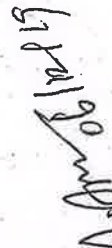
Project Name: Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km [Left Bank]

Lawford straight cut L.S 0.0 to 3.90 Km.

Soil Samples collected @ - L.S 148.400 Km to 149.200 Km [Left Bank], & L.S 149.650 Km to 150.800 Km [Left Bank]

Sample No.	Sample Location	Side	Free Swell Index (%)	Grain Size Analysis					Classification of Soil as per IS: 1498-1970	Atterberg's Limit			Modified Proctor		Remarks
				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Total Fineness		LL (%)	PL (%)	PI (%)	MDD (g/cc)	OMC (%)	
1	148.700	Left Bank	33.33	0	46	27	27	54	CL	25.89	17.49	8.40	1.827	14.55	
2	149.050	Left Bank	30.00	0	47	25	28	53	CL	24.98	17.87	7.11	1.815	14.30	
3	149.950	Left Bank	31.59	1	48	31	20	51	ML-CL	24.57	18.52	6.05	1.807	13.75	
4	150.350	Left Bank	38.89	1	47	28	24	52	CL	26.77	17.35	9.42	1.814	15.40	
5	150.600	Left Bank	30.00	0	49	30	21	51	ML-CL	24.66	18.13	6.53	1.802	15.15	

Note: As furnished by the customer, the results related to the item tested

  
 Supervised by

  
 Head of the Dept.  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagappattinam.



**Public Works Department**  
**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2019/ Dated: 26.11.2019**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – **Lab testing - Blanket Course samples [Gravel:70% + Sand: 30%] - (3 samples)-** Regarding.

Sir,


With reference to the above subject, we would like to submit **Blanket course Samples [Gravel:70% + Sand: 30%] - (3 samples)- collected from stock yard @ Brinjumoolai.**

Kindly conduct the following necessary tests on the above said sample

Grain size Analysis	-	as per IS:2720 (Part-4)
Free Swell Index	-	as per IS:2720(Part-40)
LL/PL	-	as per IS:2720 (Part-5)
MDD/OMC	-	as per IS:2720 (Part-8)
CBR Value	-	as per IS:2720 (Part-16)

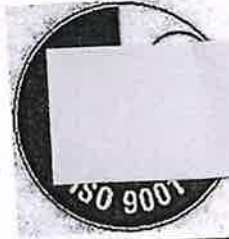
The sample may please be tested as per the above and reported its suitability against IS:2720 at the earliest.

Encl: As stated above

  
**Executive Engineer, PWD/WRD.,,**  
Project Implementation Unit-II,  
Nagapattinam.



**E.G.S. PILLAY ENGINEERING COLLEGE**  
NAGAPATTINAM - 611 002.  
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(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)  
(Affiliated to Anna University Chennai)



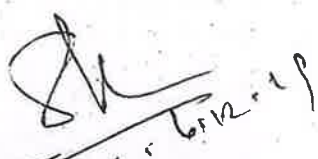
**Consultancy services**  
(Department of Civil Engineering)

Date: 06.12.2019

Ref. No. EGSPEC/MTR/3317/2019

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lt.No: DB/DO/ADB/2019/ Dated: 26.11.2019
3. Name of the Work : **ADB - CAVSCD Project - Infrastructure Improvements and Reconstruction**  
works on Harichandranathi- from LS 121.260 km to 160.210 Km &  
Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : **Blanket Course -3 samples [ Gravel:70% + Sand: 30%]**  
(Stock yard @ Brinjumoolai)
5. Sample received : 27.11.2019
6. Sample test date : 28.11.2019
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

Encl: Test Report

  
**Head of the Department**  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
 OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002

RECEIPT

Bill No : 949  
 Name : W.R.O /NAGAI  
 Roll No :  
 YEAR :  
 Date : 06-DEC-2019  
 Course :  
 Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	7500
Rupees : Seven Thousand Five Hundred Only	
	7500.00

AMOUNT WILL NOT BE REFUNDED



Payee's Signature and Name

Accountant

Cashier

2.36	21.9	22.5	21.1	22.0
600 microns	17.3	18.1	17.0	17.5
75 microns	3.1	3.5	2.7	3.1

Note: As furnished by the customer, the results related to the item tested.

Supervised By. *A.M. 06.12.2019*

Dr. R. SIVAKUMAR  
 Head of Department  
 Professor & Head  
 Department of Civil Engin  
 E.G.S. Pillay Engineering C



## TEST REPORTS ON WET MIX MACADAM [WMM]

**Project Name:** Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km.

**Source of Material:** Sri Murugan Metals, Padalur.

**Location:** Stock yard @ Sithaimoor Railway Bridge

As per MoRT&H -V Table- 400-12 Physical requirement for Coarse Aggregates for Wet Mix Macadam

S.No	Type of Test	Test method	Achieved values	As per Specification Limit
1	Aggregate Impact Value (AIV)	IS:2386 Part-4	17.55 %	Maximum: 30 %
2	<u>Atterberg's Limits</u> Limit Liquid Limit Plasticity Index	IS:2720 Part-5	19.10 % Non-Plasticity	≤: 6%
3	Water Absorption	IS:2386 Part-3	0.41 %	Maximum: 2%
4	Proctor Compaction (MDD/OMC)	IS:2720 Part-8	MDD: 2.430 g/cc OMC: 6.15%	-
5	Combined Flakiness and Elongation indices (Total)	IS:2386 Part-1	29.55 %	Maximum: 35%

As per MoRT&H -V Table 400-13 Grading Requirements of Aggregates for Wet Mix Macadam

Sieve size (mm)	Grain size distribution (% by Weight of Passing)			Average% Passing (Achieved)	Specification limits as per MoRT&H V, Table 400-13
	Sample-01	Sample-02	Sample-03		
53.0	100	100	100	100	100
45.0	98.5	100	97.7	98.7	95-100
22.4	67.5	73.2	69.9	70.2	60-80
11.2	50.3	53.1	47.2	50.2	40-60
4.75	33.7	34.1	32.9	33.6	25-40
2.36	21.9	22.5	21.7	22.0	15-30
600 microns	17.3	18.1	17.0	17.5	8-22
75 microns	3.1	3.5	2.7	3.1	0-5

Note: As furnished by the customer, the results related to the item tested.

Supervised By.

  
**Dr. R. SIVAKUMAR** M.E., Ph.D.  
 Head of Department  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagappattinam.

**Public Works Department**

**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2019/ Dated: 22.11.2019**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – Lab testing - Gravel samples - (3 samples)- Regarding.

Sir,


With reference to the above subject, we would like to submit Gravel Samples (3 samples)- collected from stock yard @ Brinjumoolai.

Kindly conduct the following necessary tests on the above said sample

Grain size Analysis	-	as per IS:2720 (Part-4)
Free Swell Index	-	as per IS:2720(Part-40)
LL/PL	-	as per IS:2720 (Part-5)
MDD/OMC	-	as per IS:2720 (Part-8)
CBR Value	-	as per IS:2720 (Part-16)

The sample may please be tested as per the above and reported its suitability against IS:2720 at the earliest.

Encl: As stated above

  
**Executive Engineer, PWD/WRD.,,**  
Project Implementation Unit-II,  
Nagapattinam.



# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)

(Affiliated to Anna University Chennai)



## Consultancy services (Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3313/2019

Date: 03.12.2019

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lr.No: DB/DO/ADB/2019/ Dated: 22.11.2019
3. Name of the Work : ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : **Gravel -3 samples (Stock yard @ Brinjumoolai)**
5. Sample received : 22.11.2019
6. Sample test date : 25.11.2019
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

Encl: Test Report

Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.



**EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)**  
**OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**



Bill No  
 Name  
 Roll No  
 YEAR

**RECEIPT**

Date : 03-Dec-2019  
 Course :  
 Mode of Payment : Cash  
 Bill No : 825  
 Name : W.R.O /NAGAI  
 Roll No :  
 YEAR :

Fees Type	Amount
TESTING BILL	15250
Rupees: fifteen Thousand two Hundred Fifty Only	
	15250.00

**AMOUNT WILL NOT BE REFUNDED**



Payees Signature and Name

*[Signature]*  
 Cashier

*[Signature]*  
 Accountant

**GSB Grading-V)**

Shandranathi from L.S 121.260  
 n.

Materials

Percentage (%) (Achieved)	Specification limits as per MoRT&H V, Table 400-1, Grading V
100	100
94.2	80-100
68.5	55-90
40.1	35-65
31.9	25-50
18.2	10-20
8.2	2-10
3.6	0-5

-Base Materials

Values	As per Specification Limit
%	Maximum: 40 %
% icity	Maximum: 25% Minimum: 6%
%	Maximum: 2%
g/cc	-
%	Minimum: 30%

*[Signature]* 03.12.2019  
 Supervised By

*[Signature]*  
 Dr. **R. SIVAKUMAR**, M.E., Ph.D.  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College.

Note: As furnished by the customer, the results related to the item tested.

CBR at 98% Compaction	IS:2720 Part-16	76.8 %	Minimum: 30%
-----------------------	-----------------	--------	--------------





## TEST REPORTS ON GRANULAR SUB-BASE (GSB Grading-V)

**Project Name:** Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km & Lawford straight cut L.S 0.0 to 3.90 Km.

**Source of Material:** Sri Murugan Metals, Padalur

**Location:** Stock yard @ Sithaimoor Railway Bridge.

**Table 400-1 Grading for Granular Sub-Base Materials**

Sieve size (mm)	Grain size distribution (% by Weight of Passing)			Average% Passing (Achieved)	Specification limits as per MoRT&H V, Table 400-1, Grading V
	Sample-01	Sample-02	Sample-03		
75.0	100	100	100	100	100
53.0	92.5	93.9	96.2	94.2	80-100
26.5	70.5	68.8	66.3	68.5	55-90
9.50	38.5	40.1	41.8	40.1	35-65
4.75	31.5	33.2	31.0	31.9	25-50
2.36	18.5	17.2	18.8	18.2	10-20
0.850	7.9	8.5	8.1	8.2	2-10
0.425	3.7	4.0	3.1	3.6	0-5

**Table- 400-2 Physical requirement for Granular Sub-Base Materials**

S.No	Type of Test	Test method	Achieved values	As per Specification Limit
1	Aggregate Impact Value (AIV)	IS:2386 Part-4	18.25 %	Maximum: 40 %
2	<u>Atterberg's Limits</u> Limit Liquid Limit Plasticity Index	IS:2720 Part-5	19.20 % Non-Plasticity	Maximum: 25% Minimum: 6%
3	Water Absorption	IS:2386 Part-3	0.45 %	Maximum: 2%
4	Proctor Compaction (MDD/OMC)	IS:2720 Part-8	MDD: 2.422 g/cc OMC: 5.90%	-
5	CBR at 98% Compaction	IS:2720 Part-16	76.8 %	Minimum: 30%

Note: As furnished by the customer, the results related to the item tested.

*A. M. 03.12.2019*  
Supervised By

*[Signature]*  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head



**Public Works Department**  
**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2019/ Dated: 20.04.2019**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – .Lab testing – Soil samples L.S 154.200 Km to 154.650 Km [Left Bank], & L.S 155.700 Km to 156.300 Km [Left Bank] & 156.300 Km to 156.750 Km [Left Bank]- Regarding.

Sir,

With reference to the above subject, We hereby would like to submit Soil Samples, collected from L.S 154.200 Km to 154.650 Km [Left Bank], & L.S 155.700 Km to 156.300 Km [Left Bank] & 156.300 Km to 156.750 Km [Left Bank].

**Location of Samples:**


S. No.	Sample Location (Km)
1	154.400
3	156.150
3	156.400
4	156.650

Kindly conduct the following necessary tests on the above said samples

Grain size Analysis	-	as per IS:2720 (Part-4)
Free Swell Index	-	as per IS:2720(Part-40)
LL/PL	-	as per IS:2720 (Part-5)
MDD/OMC	-	as per IS:2720 (Part-8)

The sample may please be tested as per the above and reported its suitability against IS:1498-1970 at the earliest.

Encl: As stated above

  
**Executive Engineer, PWD/WRD.,,**  
Project Implementation Unit-II,  
Nagapattinam.



# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)  
(Affiliated to Anna University Chennai)




## Consultancy services (Department of Civil Engineering)

Date: 02.05.2019

Ref. No. EGSPEC/MTR/3228/2019

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lr.No: DB/DO/ADB/2019/ Dated: 20.04.2019
3. Name of the Work : ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : Soil [5 Nos.]  
L.S 154.200 Km to 154.650 Km [Left Bank], & L.S 155.700 Km to 156.300 Km [Left Bank] & 156.300 Km to 156.750 Km [Left Bank]
5. Sample received : 22.04.2019
6. Sample test date : 24.04.2019
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

Encl: Test Report

  
Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.

**EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
 OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**

**RECEIPT**

Bill No : 690  
 Name : W.R.O /NAGAI  
 Roll No :  
 YEAR :  
 Date : 02-May-2019  
 Course :  
 Mode of Payment : Cash



*[Signature]*  
 Supervised By

Fees Type	Amount
TESTING BILL	10550
Rupees : Ten Thousand five Hundred Fifty Only	
	10550.00



*[Signature]*

Payee's Signature and Name

*[Signature]*  
 Cashier

*[Signature]*  
 Accountant

**AMOUNT WILL NOT BE REFUNDED**

Head of the Dept  
**Dr. R. SIVAKUMAR**  
 Professor & H  
 Department of Civil En  
 E.G.S. Pillay Engineer  
 Nagappattina



## TEST REPORT ON BLANKET COURSE

**Project Name:** Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km & Lawford straight cut L.S 0.0 to 3.90 Km.

**Location:** Blanket Course (Stock yard @ Brinjumoolai)

[Gravel: 70% + Sand 30%]

Sample ID	Grain Size Analysis			Free Swell Index (%)	Atterberg's Limit			Modified Proctor		CBR Value @ 97% Compaction
	Gravel (%)	Sand (%)	Silt & Clay (%)		LL (%)	PL (%)	PI (%)	MDD (g/cc)	OMC (%)	
Sample-01	33.5	60.9	5.6	10.00	20.95	18.37	2.58	2.178	8.25	16.16
Sample-02	34.5	58.9	6.6	11.11	21.35	17.99	3.36	2.155	8.30	-
Sample-05	32.8	61.3	5.9	15.00	20.70	18.15	2.55	2.175	8.00	17.18

Note: As furnished by the customer, the results related to the item tested

*A. Am 2.5.19*  
Supervised By

*[Signature]*  
Head of the Dept.  
Dr. R. SIVAKUMAR, M.E., Ph.D.  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagappattinam.

**Public Works Department**  
**Water Resources Organization**

From  
**Er.S. Gnanasekaran, B.E.,**  
Executive Engineer, PWD/WRD,  
Project Implementation Unit-II,  
Nagapattinam

To  
Head of the Department,  
Department of Civil Engineering.,  
EGS Pillai Engineering Collage,  
Nagapattinam

**Lr.No: DB/DO/ADB/2019/ Dated: 09.04.2019**

Sub: ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km. – Lab Testing – .Lab testing – Soil samples - L.S 148.400 Km to 149.200 Km [Left Bank], & L.S 149.650 Km to 150.800 Km [Left Bank]- Regarding.

Sir,

With reference to the above subject, We hereby would like to submit **Soil Samples**, collected from L.S 148.400 Km to 149.200 Km [Left Bank], & L.S 149.650 Km to 150.800 Km [Left Bank]

**Location of Samples:**


S. No.	Sample Location (Km)
1	148.700
2	149.050
3	149.950
4	150.350
5	150.600

Kindly conduct the following necessary tests on the above said samples

Grain size Analysis	-	as per IS:2720 (Part-4)
Free Swell Index	-	as per IS:2720(Part-40)
LL/PL	-	as per IS:2720 (Part-5)
MDD/OMC	-	as per IS:2720 (Part-8)

The sample may please be tested as per the above and reported its suitability against IS:1498-1970 at the earliest.

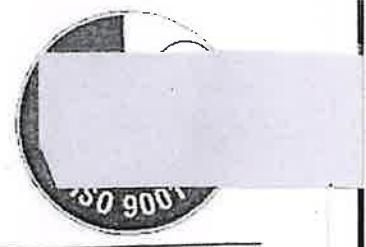
Encl: As stated above

  
**Executive Engineer, PWD/WRD.,**  
Project Implementation Unit-II,  
Nagapattinam.

**EGS PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
 OLD NAGORE ROAD - NAGAPATTINAM TAMILNADU 611002**

**E.G.S. PILLAY ENGINEERING COLLEGE**  
 NAGAPATTINAM - 611 002.  
 (Autonomous Institution)

Tamil Nadu)



Date: 18.04.2019

**RECEIPT**  
 Bill No : 642  
 Name : W.R.O /NAGAI  
 Roll No :  
 YEAR :  
 Date : 18-Apr-2019  
 Course :  
 Mode of Payment : Cash

Fees Type	Amount
TESTING BILL	10550
Rupees: Ten Thousand fiveHundred Fifty Only	
	10550.00

**AMOUNT WILL NOT BE REFUNDED**



*[Signature]*  
 Cashier

*[Signature]*  
 Accountant

*[Signature]*  
 Payee's Signature and Name

19

provements and Reconstruction  
 0 km to 160.210 Km &  
 900 Km.  
 & L.S 149.650 Km

*[Signature]*  
 Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
 Professor & Head  
 Department of Civil Engineering,  
 E.G.S. Pillay Engineering College,  
 Nagappattinam.



Bill No  
 Name  
 Roll No  
 YEAR





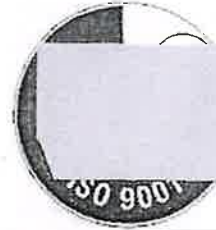
# E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM - 611 002.

(An ISO 9001:2015 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu)

(Affiliated to Anna University Chennai)



## Consultancy services

(Department of Civil Engineering)

Ref. No. EGSPEC/MTR/3219/2019

Date: 18.04.2019

1. Name of the Client : **The Executive Engineer.,**  
Project Implementation Unit-II  
Nagapattinam.
2. Client Reference No: Lr.No: DB/DO/ADB/2019/ Dated: 09.04.2019
3. Name of the Work : ADB – CAVSCD Project – Infrastructure Improvements and Reconstruction works on Harichandranathi– from LS 121.260 km to 160.210 Km & Lawford Straight Cut from LS 0.00 Km to 3.900 Km.
4. Sample details : Soil [5 Nos.]  
L.S 148.400 Km to 149.200 Km [Left Bank], & L.S 149.650 Km to 150.800 Km [Left Bank]
5. Sample received : 10.04.2019
6. Sample test date : 12.04.2019
7. Test conducted by : Mr. A. Arjunan. Assistant Professor.

**Encl:** Test Report

Head of the Department  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.G.S. Pillay Engineering College,  
Nagapattinam.


## TEST REPORT ON GRAVEL


**Project Name:** Infrastructure improvement and reconstruction works on Harichandranathi from L.S 121.260 Km to 160.200 Km & Lawford straight cut L.S 0.0 to 3.90 Km.

**Location:** Stock yard @ Brinjumoolai

Sample ID	Grain Size Analysis			Free Swell Index (%)	Atterberg's Limit			Modified Proctor		CBR Value @ 97% Compaction
	Gravel (%)	Sand (%)	Silt & Clay (%)		LL (%)	PL (%)	PI (%)	MDD (g/cc)	OMC (%)	
Sample-01	37.8	48.5	13.7	11.11	22.15	16.20	5.95	2.195	7.55	18.05
Sample-02	39.9	47.9	12.2	16.67	23.10	16.35	6.75	2.190	7.95	-
Sample-03	38.8	49.3	11.9	15.00	21.60	15.94	5.66	2.180	8.10	17.47

Note: As furnished by the customer, the results related to the item tested

  
Supervised By

  
Head of the Dept.  
**Dr. R. SIVAKUMAR, M.E., Ph.D.**  
Professor & Head  
Department of Civil Engineering,  
E.S.S. Pillay Engineering College,  
Nagappallinam.

**CONSULTANCY WORK**  
**TEXTILE SHOP BILLING SYSTEM**

(Ref.No: EGSPEC/CW/CSE/2019/01)

**CUSTOMER DETAIL**  
**RICH TRENDS MEN'S WEAR**  
**27-B, Main Road, Porayar – 609307**

**Coordinator(s)**

**Dr.T.GANESAN**

PROFESSOR

**Mr.G.ARUL SELVAN**

ASSISTANT PROFESSOR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
E.G.S PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM – 611 002,  
TAMIL NADU

<http://www.egspec.org>

Ph: 04365 – 251112



**E.G.S PILLAY ENGINEERING COLLEGE (Autonomous), NAGAPATTINAM**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Consultancy Work**

**“TEXTILE SHOP BILLING SYSTEM”**

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# E. G.S.PILLAY ENGINEERING COLLEGE (Autonomous)

NAGAPATTINAM - 611 002.

(An ISO 9001:2008 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu )

(Affiliated to Anna University Chennai)

(Accredited by NAAC with 'A' Grade & NBA)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

10/07/2019

Ref. No: EGSPEC/CW/CSE/2019/01

To

**Mr.G.Siva,**  
Proprietor, Rich Trends Men's Wear,  
27-B, Main Road,  
Porayar- 609307.

Dear sir

Sub: Consultancy Work – Reg

Greetings from E.G.S. Pillay Engineering College (Autonomous), Nagapattinam

We wish to inform that we are one of the best engineering institutions in Nagapattinam district. We have 25 years of experience in producing world class engineers. Many of our students are working abroad also. We are happy to inform you that we have developed many consultancy works for various purposes. We are also doing consultancy work for Textile Shop Billing System. This software will helps you to maintain day to day sales along with stock details. This also will generate bill for each sale. Herewith, we attach d the institution and department profiles for your kind reference.

Kindly let us know about your requirements if you need any consultancy service with us. Here by I have attached our institutional details, some of the consultancy work so far did and my profile.

Expecting a positive reply from your side

Thanking you,



Yours sincerely

(Dr.T.Ganesan)

### Contact Details

Dr.T.Ganesan, Professor,  
Prof.G.Arul Selvan, Assistant Professor,  
Department of Computer Science and Engineering  
E.G.S. Pillay Engineering College (Autonomous), Nagapattinam  
Email Id: ganesan.t@egspec.org  
Contact No: 9940742877

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## 1. INSTITUTION PROFILE

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E.G.S Pillay Engineering College is a pioneering Engineering College, established in the year 1995, at Nagapattinam, which is a typical rural and backward area of Tamil Nadu. The institution was created by Late.G.S.Pillay. He was born on 2<sup>nd</sup> January, 1930 in a poor family. He was deprived of education due to his family circumstance. He went to Seychelles when he was 15 years old in search of employment for his livelihood. The E.G.S Pillay Engineering College, Nagapattinam was the first institution established by Mr.G.S.Pillay in the year 1995 aiming at providing world class education in engineering, fostering industrial prosperity and aiding the socio-economic development of the nation at large. The institution was affiliated to Bharathidasan University, Trichy during the years 1995 to 2006 and afterwards the affiliation is being accorded by the Anna University.

The college is located in the significant pilgrimage zone of south India covering Velankanni, Nagore and neighbour state Karaikal-Thirunallar. It is situated close to East Coast Road (ECR) between Karaikal and Nagapattinam and 2 km from Nagore. The nearest Railway station is Nagapattinam which has direct link with Chennai and Trichy. The nearest airport is Trichy which is 120 km away and that of Chennai is 350 km away.

The college is stepping into 19<sup>th</sup> year of excellent service in the year of 2014. Over these years, the college has attained commendable growth by developing itself in every aspect, in terms of academic programs, infrastructure development, staff recruitment, students admission, project and research activities, Transport, Training and Placement, centralized library, Sports and games etc.,

The college offers 7 UG degree program in B.E/B.Tech and 6 PG degree programs in M.E including MBA and MCA.

The Programs are

**UG Courses:**

- B.E – Mechanical Engineering
- B.E – Civil Engineering
- B.E – Computer Science and Engineering
- B.E – Electrical and Electronics Engineering
- B.E – Electronics and Communication Engineering
- B.Tech – Information Technology
- B.E – Biomedical Engineering

**PG Courses:**

- Master of Business Administration
- Master of Computer Applications



M.E – Manufacturing Engineering  
M.E – Computer Science and Engineering  
M.E – Communication Systems  
M.E – Power Electronics and Drives

**Vision:**

- Envisioned to transform our institution into a “Global Center of Academic Excellence”

**Mission:**

- To provide world class education to the students and to bring out their inherent talents.
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning and supplementary processes.
- To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills.
- To have regular interaction with the the industries in the areas of R&D and offer consultancy training and testing services.
- To establish center of excellence in the emerging areas of research
- To offer continuing education, and non-formal vocational education programmes that are beneficial to the society.

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## **2. DEPARTMENT PROFILE**

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The department has well qualified and experienced staff and it continually updates its laboratories with modern facilities. The department conducts various seminars and workshop periodically. Various associations are formed related to the department. The students are given different mini-projects in the pre-final year so that their individual ideas can be implemented. The staff and students are encouraged to present papers at various colleges and many have won prizes in the face of stiff competitions.

**Vision:**

- To produce globally competent computer professionals capable of adaptive to the ever-changing technological trends of Industry and Society.

**Mission:**

- To build the core competence desirable for a computer professional such as design, development, testing and maintenance of software systems to work in real world projects excelling the expected standards of Industries.
- To train the students to acquire high demand skills of emerging technologies to make them preferable for employers.
- To provide state-of-the-art learning facilities for effective implementation of learner centric teaching-learning process to develop professional skills, self-learning and lifelong learning capabilities.

### **PROGRAMME EDUCATIONAL OBJECTIVES**

The current PEO statements targeted for B.E – Computer Science & Engineering are given below.

**PEO1:** To develop strong knowledge and skills in the domain of Computer Science and Engineering for leading a successful career in industries or entrepreneurial endeavours.

**PEO2:** To prepare and assist the graduates to be successful in higher education and research activities in the theory and application of computing related engineering fields.

**PEO3:** To train the graduates to learn and adapt to the ever-changing world of technology.

## PROGRAM SPECIFIC OUTCOMES

The graduates will have

**PSO1:** The ability to apply software engineering principles and practices to design and develop software systems that meet the automation needs of industrial and societal problems.

**PSO2:** The ability to apply the technical skills and knowledge gained in the fields such as Artificial Intelligence, Data Science, Cloud Computing, Social Network Analysis & Mobile Application development.

## PROGRAMME OUTCOMES

Graduates will be able to

PO1: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Understand the impact of the professional engineering solutions in societal and



environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PEOs	PO												PSO	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓
2	✓	✓		✓	✓					✓	✓		✓	✓
3						✓	✓	✓	✓			✓		

#### Courses Offered

B.E – Computer Science & Engineering.  
M.E – Computer Science & Engineering.  
Ph.D/M.S(By Research)

**Association Name**

CEA – Computer Engineers Association

**Features of the Department**

- Ensures quality and value based education
- Provides career guidance by the associating experts in the different fields
- Is renowned for its meticulous planning concerted efforts, competent and committed teaching faculty
- Enables extension / guest-lectures by the expertise in the various disciplines concerned
- Conducts academic programmer like tests, symposia, workshops, seminars etc
- Academic competitions like Paper presentation, essay writing, quiz etc.,
- Tours of academic interests
- Taps innovative talents, interests of its wards
- Conducts Weekly test, Short Answer Test and offers continuous evaluation of the performance of the students
- Remedial classes for slow learners
- Time to Time counseling by mentors
- Challenges students with extensive coaching of wide-ranging difficulty levels by conducting APTITUDE, REASONING tests
- Conducts class committee meetings
- Holds Parent-Teacher meetings
- Encourage the students to donate blood
- Conducts ENGLISH LITERARY ASSOCIATION PROGRAMME for the staff and students
- Ensure students participation in the Women Empowerment cell programs
- Sponsors the faculty for International/National Conferences/Seminars/Workshops, etc
- Personality development programs are conducted to improve student's soft skills
- Students are encouraged to do mini projects
- The department library has an extensive collection of academic books in the areas of latest technologies
- The department has stable, highly qualified and experienced staff members in the staff student ratio of 1:15

**Laboratory facilities**

All the laboratories are well equipped with high end systems to satisfy the present day technologies. The students can train themselves in the Laboratories with the guidance of the faculty during and after the college hours. The laboratory facilities are constantly upgraded to take care of the technological Changes in the respective disciplines.

**Department Servers and Software Details**

- Microsoft Windows Server 2003
- Linux Fedora v19
- Oracle 11i Data base Server Workstations
- 471 Core i3 and Pentium based systems with multimedia facilities

- Capable of getting connected to all server and every other systems over TCP/IP backbone
- All systems having access with Internet/Intranet
- Software
- Microsoft Windows Server 2003
- CentOS 5.3 (For C & C++ programming and Script languages)
- Free BSD
- Oracle 11i
- IBM DB2
- PowerBuilder
- Sybase
- Microsoft Office 2007
- Microsoft Visual Studio 6.0
- Microsoft Visual Studio 2010
- Mathematica
- IDL (Image Processing Tools)
- MathCAD
- IBM Rational Suite and IBM Rational Architect
- Macromedia Flash and Dreamweaver
- Front Page Express
- Novell Netware
- Adobe Photoshop
- Network Simulator – 2 (Free Ware for Both Windows and Linux)
- .netbeans Developer
- Sun JDK, J2EE and J2ME
- Internet Facilities
- 16 Mbps leased line from Reliance

**Priority Research Areas**

1. Cloud Computing
2. Data Analysis
3. Data Mining and Warehousing
4. Network Security
5. Image Processing
6. Mobile Application Development
7. Ubiquitous Computing
8. Sensor Computing
9. Natural Language Processing
10. Green Computing



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**COORDINATOR DETAILS**

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---

S.No	Name of the Coordinator	Designation	Contact No.	EmailID
<b>Faculty Members</b>				
01	Dr.T.Ganesan	Professor/CSE	9940742877	<a href="mailto:ganesan.t@egspec.org">ganesan.t@egspec.org</a>
02	Mr.G.Arul Selvan	Asst.Prof/CSE	8870641821	<a href="mailto:arulselvan@egspec.org">arulselvan@egspec.org</a>

G.Siva :6385746377



**RICH  
TRENDS**

ரிச் டிரென்ட்ஸ்

**For Rich Looks & Unique style**

MENSWEAR

. Shirts . T-Shirts . Inner Wears . Jeans Pant . Cotton Pant

**27-B, Main Road, PORAYAR.**

17/07/2019

To

Dr.T.Ganesan,  
Professor,  
Department of Computer Science & Engineering,  
E.G.S. Pillay Engineering College (Autonomous),  
Nagapattinam.

Sir

Sub: Consultancy Work – with reference to your letter Dated: 10/07/2019 -Reg

Thank you for writing to us. This billing system management idea is very interesting and we hope that it will be very useful for us to maintain the accounts as well as stocks. We are willing to implement this software in our shop.

Kindly send your project proposal for further activities.

Thanking you

Yours

*G. Siva*  
**RICH TRENDS  
MENS WEAR  
27-6, Main Road,  
PORAYAR - 609 307.  
Cell:63857 46377,**



**E. G.S.PILLAY ENGINEERING COLLEGE  
(Autonomous)**

NAGAPATTINAM - 611 002.

(An ISO 9001:2008 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu )

(Affiliated to Anna University Chennai)

(Accredited by NAAC with 'A' Grade)

(Accredited by NBA)

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

18/07/2019

To

Dr. E. Edward Anand  
Director - R & D  
E.G.S Pillay Engineering College  
Nagapattinam - 611002

Respected Sir,

Sub – Requesting permission to do consultancy work – Reg.

I wish to inform you that Rich Trends Mens Wear, Porayar is accepted to develop a software for their textile shop. I request you to permit me to do this consultancy work.

Thanking you

Yours sincerely,

(Dr.T.Ganesan)

*Permitted*

*[Signature]*  
18/7/2019





## E. G.S.PILLAY ENGINEERING COLLEGE (Autonomous)

NAGAPATTINAM - 611 002.

(An ISO 9001:2008 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu )

(Affiliated to Anna University Chennai)

(Accredited by NAAC with 'A' Grade & NBA)

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

23/07/2019

Ref. No: EGSPEC/CW/CSE/2019/01

To

**Mr.G.Siva,**  
Proprietor, Rich Trends Men's Wear,  
27-B, Main Road,  
Porayar- 609307.

Sir

Sub: Consultancy Work - Reg

Greetings from E.G.S. Pillay Engineering College, Nagapattinam

With reference to your letter dated on 17/07/2019, we are glad to hear your positive response. Herewith we enclose our proposal for your kind reference. The approximate cost for developing the software will be around Rs. 85,000.

We request you to fix a date for discussing about the work.

Thanking You



Yours sincerely

(Dr.T.Ganesan)

Contact Details

Dr.T.Ganesan, Professor,  
Prof G.Arul Selvan, Assistant Professor,  
Department of Computer Science and Engineering  
E.G.S. Pillay Engineering College (Autonomous), Nagapattinam  
Email Id: ganesan.t@egspec.org  
Contact No: 9940742877

.Siva :6385746377



**RICH  
TRENDS**

ரிச் டிரென்ட்ஸ்

**For Rich Looks & Unique style**

**MENSWEAR**

**. Shirts . T-Shirts . Inner Wears . Jeans Pant . Cotton Pant**

**27-B, Main Road, PORAYAR.**

26/07/2019

To

Dr.T.Ganesan,  
Professor  
Department of Computer Science & Engineering  
E.G.S. Pillay Engineering College (Autonomous)  
Nagapattinam

Sir

Sub: Consultancy Work – Reg.

I accept your consultancy work of Textile Billing system. I will to come to your college on 29/07/2019 for discussing about the consultancy work. I hope this work is very important for us.

Thanking you

Yours

*G. Siva*  
**RICH TRENDS  
MENS WEAR  
27-B, Main Road,  
PORAYAR - 609 307.  
Cell:63857 46377,**

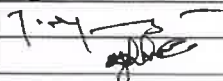
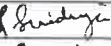
## MINUTES OF MEETING

EGS Pillay Engineering College(Autonomous), Nagapattinam  
Department of Computer Science & Engineering

### Minutes of Meeting

Consultancy Work	
Title	Textile Shop Billing System
Ref.No	EGSPEC/CW/CSE/2019/01
Meeting No.	01
Date	29/07/2019
No. of Attendees	07
Venue	Department of CSE -Faculty Room

### Members Present

S.No	Name of the Members	Designation/Dept	Signature
01	Dr.T.Ganesan	Professor/CSE	
02	Mr.G.Arul Selvan	Assistant Professor/CSE	
03	G.Siva	Proprietor/Rich Trends Men's Wear, Porayar	
04	Mr. N.Mohamed Ibrahimshaibu Marikyar	Student	
05	Ms. R.Sindhuja	Student	
06	Mr. G.Ashwin	Student	
07	Ms. R. Nandhini	Student	

### Points Discussed

S.No	Points
<b>The following points discussed in project meeting</b>	
01	Dr.T.Ganesan delivered welcome address.
02	Mr.G.Arul Selvan explained about the project details.
03	Discussed with project details like objective, duration, project status monitoring....
04	Explained various levels in the sense of hardware and software profile and outcomes.
05	Signed Consultancy Assignment Proposal and Agreement form

Minuted by: Mr.G.Arul Selvan  
Copy to: Department file and Company



  
HOD/CSE



Siva :6385746377



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**27-B, Main Road, PORAYAR.**

26/06/2020

To

Dr.T.Ganesan,  
Professor,  
Department of Computer Science & Engineering  
E.G.S. Pillay Engineering College (Autonomous)  
Nagapattinam

Sir

Sub: Consultancy Work – Reg

At the outset I thank the coordinators for the software developed. It is very useful for monitoring our shop's day to day activities. It satisfies all our needs. Herewith I enclosed a copy of the cheque for payment details made by me for your reference.

Thanking you

Yours

*G. Siva*

**RICH TRENDS  
MENS WEAR  
27-B, Main Road,  
PORAYAR - 609 307.  
Cell:63857 46377,**

24



புதுக்கோட்டை கிராம வங்கி

पुदुक्कोट्टै भारतियार ग्राम बैंक

**PUDUVAI BHARATHIAR GRAMA BANK**  
(Sponsored by Indian Bank)

புதுக்கோட்டை - 605 003  
Puducherry Main - 605 003  
IFSC CODE : IDIB0PBG001

26062020  
DDMMYY  
ENCIN EERING COLLEGE  
या धारक को OR BEARER

PAY R. ANAND CONSULTANCY, EAS PILLAY  
Family five thousand only  
अदा करें

₹ 85,000

खा. सं. 94918157  
A/c. No.

KOTTUCHERRY-70034

HIMSEU

*Himseu*  
Please sign above

"VALID FOR THREE MONTHS ONLY  
FROM THE DATE OF ISSUE W.E.F. 1.4.2012"

1199758211 6050192511

10



**E. G.S.PILLAY ENGINEERING COLLEGE  
(Autonomous)**

NAGAPATTINAM - 611 002.

(An ISO 9001:2008 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu )

(Affiliated to Anna University Chennai)

(Accredited by NAAC with 'A' Grade & NBA)

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

11/07/2020

Ref. No: EGSPEC/CW/CSE/2019/01

To

**Mr.G.Siva,**  
Proprietor, Rich Trends Men's Wear,  
27-B, Main Road,  
Porayar - 609307.

Sir


Sub: Consultancy Work- Payment – Reg.

Greetings from E.G.S. Pillay Engineering College (Autonomous), Nagapattinam

We are very much pleased to accept your positive response and work process appreciation and we take your consideration in our future reference. Also we have received your cheque. Herewith we have attached the invoice detail for your reference.

Thanking You

Yours sincerely

  
(Dr.T.Ganesan)

Contact Details

Dr. T. Ganesan, Professor,  
Prof G. Arul Selvan, Assistant Professor,  
Department of Computer Science and Engineering  
E.G.S. Pillay Engineering College (Autonomous), Nagapattinam  
Email Id: [ganesan.t@egspec.org](mailto:ganesan.t@egspec.org)  
Contact No: 9940742877





**E. G.S.PILLAY ENGINEERING COLLEGE  
(Autonomous)**

NAGAPATTINAM - 611 002.

(An ISO 9001:2008 Certified Institution)

(Approved by AICTE, New Delhi, Approved by Govt. of Tamil Nadu )

(Affiliated to Anna University Chennai)

(Accredited by NAAC with 'A' Grade & NBA)

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

11/07/2020

Ref. No: EGSPEC/CW/CSE/2019/01

**INVOICE**

S.No	Salaries & Wages	Amount (in Rs.)
01	Coordinators and Technical Staff Salary	48,000
02	Preprocessing and Component Preparation	12,000
03	Data collection, Requirement Analysis, Designing, Prototype model, Testing and Maintenance	14,400
04	Travel	3600
05	Institutional overhead charge	7000
06	Total Cost of Project	85,000

Yours sincerely

  
(Dr. T. Ganesan)

Contact Details

Dr. T. Ganesan, Professor,

Prof G. Arul Selvan, Assistant Professor,

Department of Computer Science and Engineering

EGS Pillay Engineering College (Autonomous), Nagapattinam

Email Id: ganesan.t@egspec.org

Contact No: 9940742877

IVA :6385746377

# RICH TRENDS

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For Rich Looks & Unique style

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**27-B, Key Road, PORAYAR.**



25/07/2020

To

Dr.T.Ganesan,  
Professor,  
Department of Computer Science & Engineering  
E.G.S. Pillay Engineering College (Autonomous)  
Nagapattinam

Sir

Sub: Consultancy Work – Reg

I am very happy to inform you that consultancy work "Textile Shop Billing System" system successfully running and it improves our record maintenance very well. I had a pleasant experience with you people.

Thanking you

Yours

*G. Siva*

**RICH TRENDS  
MENS WEAR**

27-B, Main Road,  
PORAYAR - 609 307.  
Cell:63857 46377,

### Software Outcomes


1. Automate the entire billing process to remove the possibility of human errors.
2. Receive payments using cash, eWallets, cards, UPI, direct bank transfers, and cheques.
3. Impress customers with professional paper bills.
4. Create GST compliant invoices to bring clarity.
5. By using this billing software, it is easy to keep track of items all time.
6. Ability to automate purchase orders whenever a stock item reaches a lower limit.
7. Prepares sales strategy by analyzing the reports.
8. Keep records of all the sale and purchase orders and monitor them on a real-time basis.
9. Collect payments through invoices by sending digital payment links.
10. Send payment reminders over Whatsapp and emails.
11. Analyze expenses and earnings reports to make better use of resources.
12. Optimize costs by generating critical business reports.

**E.G.S.PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM.  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

Table 5.8.4 Details of Consultancy work

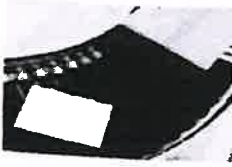
Academic Year 2019-2020					
S.No.	Name of the Company	Nature of Work	Duration	Consultancy Fee in Rs	Faculty Involved in the Work
1	SmartMind Technologies, 4/22, Triyambhava, SITRA Near. Coimbatore	Automatic Water Tank Pump Controller with SMS system	Six Month	1,65,000	Dr.M.Vijayakumar Dr.V.Mohan
2	Indiguard Systems (P) Ltd. 3/365, Kollangarai, Thanjavur.	Microcontroller based Touch Free Sanitizer Dispenser	One Month	85,000	Dr.M.Vijayakumar Mr.S.Sivamani
			Total	2,50,000	
Amount					

  
**R& D Coordinator**

  
**HOD/EEE**

**Dr. V. MOHAN M.E., Ph.D.,  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam**





# Smart mind Technologies *softy first*

4/22, Triyambhava, SITRA Near, Coimbatore-641014. Mobile: 8778108280

05.07.2019

From

R.Ganesan  
Managing Director  
Smart Mind Technologies  
4/22, Triyambhava,  
SITRA Near  
Coimbatore

To

The HOD  
Department of EEE  
E.G.S. Pillay Engineering College,  
Nagapattinam  
Sub: Consultancy work – Regarding

Dear Professor,

I want to meet your experts in accordance with our talk. In order to establish my requirements for an automatic water tank pump controller with SMS system for commercial purposes as soon as feasible, kindly schedule a one-on-one consultation with your expert team.



Thanks and Regards

[www.smartmind.com](http://www.smartmind.com)

Email: [smartinfo@gmail.com](mailto:smartinfo@gmail.com)

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

Date: 10/07/2019

Subject: One to One Discussion –Regarding


Dear Mr. R. Ganesan,

I'm Dr.V.Mohan working as Professor and Consultant at E.G.S.Pillay Engineering College Nagapattinam. With your inquired, Here, we specialize in Advanced Embedded System, PCB Design and Fabrication and we've helped your consumer product development up to end. Since you're a Managing Director at Smart Mind Technologies, Coimbatore, I believe we could collaborate to achieve good consumer product by using our Consultancy.

I'd like to invite you to our office at E.G.S.Pillay Consultancy Services, E.G.S.Pillay Engineering College, Nagapattinam for a meeting to discuss this further. Would either 15/07/2019 or 17/07/2019, 10-4 AM/PM work for you?

Please let me know if you'd like to meet at a different time.

Kind regards,

  
Professor / Consultant

EGSPCS

Contact Number: +91 9942986674

**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

**QUOTATION**

REF: EGSPCS/QUOT/EEE/2021/103

Date: 18/07/2019

To

Mr.R.Ganesan

M/S Smart Mind Technologies

4/22, Triyambhava,

SITRA Near,

Coimbatore.

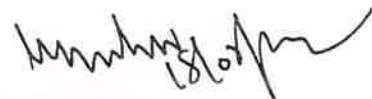
**Sub:** Quotation for Automatic Water Tank Pump Controller with SMS System - Reg

Dear Madam,

Warm Greetings from E.G.S.Pillay Consultancy Services.

With reference to our discussion for Automatic Water Tank Pump Controller with SMS System and further deliberations from there on, we are pleased to submit the Quotation for the same. Please feel free to contact us so that we can initiate the proceedings. Looking forward to hear from you.

For E.G.S.Pillay Consultancy Services



**Director/HOD**

Dr. G. SURESH K. PILLAI  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

**Commercials for Automatic Water Tank Pump Controller with SMS System**

Sl. No.	Particulars	Quantity	Rate	Amount in Rs
1.	Microcontroller based Mother Board – Design and Development Charges	1	40,000	40,000
2.	Cabinet Design and Development	1	15,000	15,000
3.	Water Pump System with Sensors	25	4,400 each	1,10,000
			Sub Total	1,65,000
			<b>Total Payable</b>	<b>1,65,000</b>

**In Words: One Lakh, Sixty Five Thousand only**

**Account Details:**

Ac/No: 51090901039993

Name : R AND D CONSULTANCY SERVICES

E.G.S. PILLAY ENGINEERING COLLEGE

Bank : CITY UNION BANK

Branch: NAGORE

**List of Deliverables :**

1. Completed and tested hardware prototype as per customer specifications.
2. Fabrication drawings.
3. Complete Design Schematic.
4. PCB fabrication files and Gerber files.
5. Firmware source files and Hex files.

**Product Ownership :**

The IP rights of the designed product belong to the customer. The E.G.S.Pillay Consultancy Services shall not claim any ownership of the developed product.



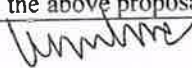
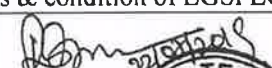
## E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS) NAGAPATTINAM

<b>Consultancy Project Agreement</b>	
Project Title:	Automatic Water Tank Pump Controller with SMS System
Name and Address of the Company:	Mr.R.Ganesan M/S Smart Mind Technologies 4/22, Triyambhava, SITRA Near, Coimbatore.
Name of the Representative:	Mr.R.Ganesan
Phone: 8778108280	E-mail: ganesansmart@gmail.com

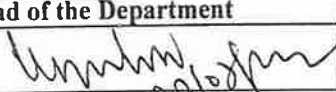
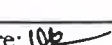
**Principal Consultant\***

S.No	Name of the Consultant	Designation	Department
1*	Dr.V.Mohan	Professor	EEE
2	Mr.M.Vijayakumar	Associate Professor	EEE

Project Cost: 1,65,000	Service Tax: Nil
Total Project Cost: 1,65,000	
Duration of Proposed Work: Six Month	
Date of Commencement: 25/07/2019	Date of Completion: 24/01/2020
Scope of Proposed Work: Automatic Water Tank Pump Controller with SMS System employs the utilization of advance sensing technology to observe the water level.	

We agree to the above proposal and also to the EGSPC terms & condition of EGSPEC Nagai.	
Signature: 	Signature: 
(Principal Consultant, EGSPEC, Nagai)	(Authorized signatory of the client)
Name: Dr. V. Mohan Professor, EEE, Electrical & Electronics Engg Department, EGS Pillay Engineering College, Nagapattinam	Name: Mr.R.Ganesan M/S Smart Mind Technologies
Date: 22/07/2019	Date: 22/07/2019

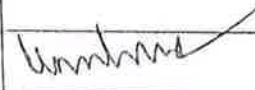
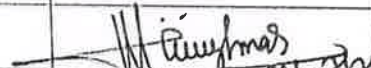


Head of the Department	EGSPC Office Use
Signature: 	Registered Project Number: EGSPCS/QUOT/EEE/2019/101
Date: 22/07/2019	Date: 22/07/2019      Signature: 

**DR. V. MOHAN**  
 PROFESSOR & HEAD  
 Department of Electrical & Electronics Engg.  
 EGS Pillay Engineering College, Nagapattinam

**E.G.S. PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM  
FORM FOR APPROVAL OF CONSULTANCY PROJECT**

1. Name of the Department/Office/Branch: **EEE**
2. Title of the Consultancy Project: **Automatic Water Tank Pump Controller with SMS System**
3. Consultancy Project Category: **I/II/III**
4. Duration of the Consultancy Project (Year/Month/Days): **Six months**
5. (I) Date of Commencement **25/07/2019** (II) Expected Date of Completion **24/01/2020**
6. Detailed Project Report (DPR) attached: **YES / NO**
7. Client's Name and Address : **Mr.R.Ganesan, M/S Smart Mind Technologies, 4/22, Triyambhava, METRA Near, Colubatore,**
8. Type of Client (Firm): **Private Sector/ Govt. Sector/ Public Sector /Foreign Agency / Others (Please Specify)**
9. Payment to be received in : **Full / Part ;Rs.65,000/-Indian Currency /Foreign Currency**
10. Whether MoU/ Agreement Signed with Client (Attach, if any): **Signed / Not Signed**
11. Consent Letter from the Client attached: **YES / NO**
12. Consent Letter from the Consultant(s) attached: **YES / NO**
13. Details of Persons Involved in the Consultancy Project:

Name of Consultant(s) along with Designation & Department/Office/Branch	Brief role	Signature
Dr. V. Mohan Professor / EEE	PI	
Mr. M. V. Jayakumar Associate Professor / EEE	CO - PI	

*(Signature of the Principal/Consultant with date)*

**PROFESSOR & HEAD**

Department of Electrical & Electronics Engg

Forwarded by Head of Department/ branch/office of **E.G.S. Pillay Engineering College - Nagapattinam**

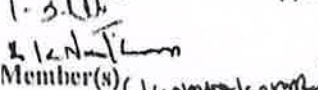
**Director (EGSPCS) Office, EGSPEC**

Consultancy Project No.: **EGSPCS/APP/EEE/2019/101**

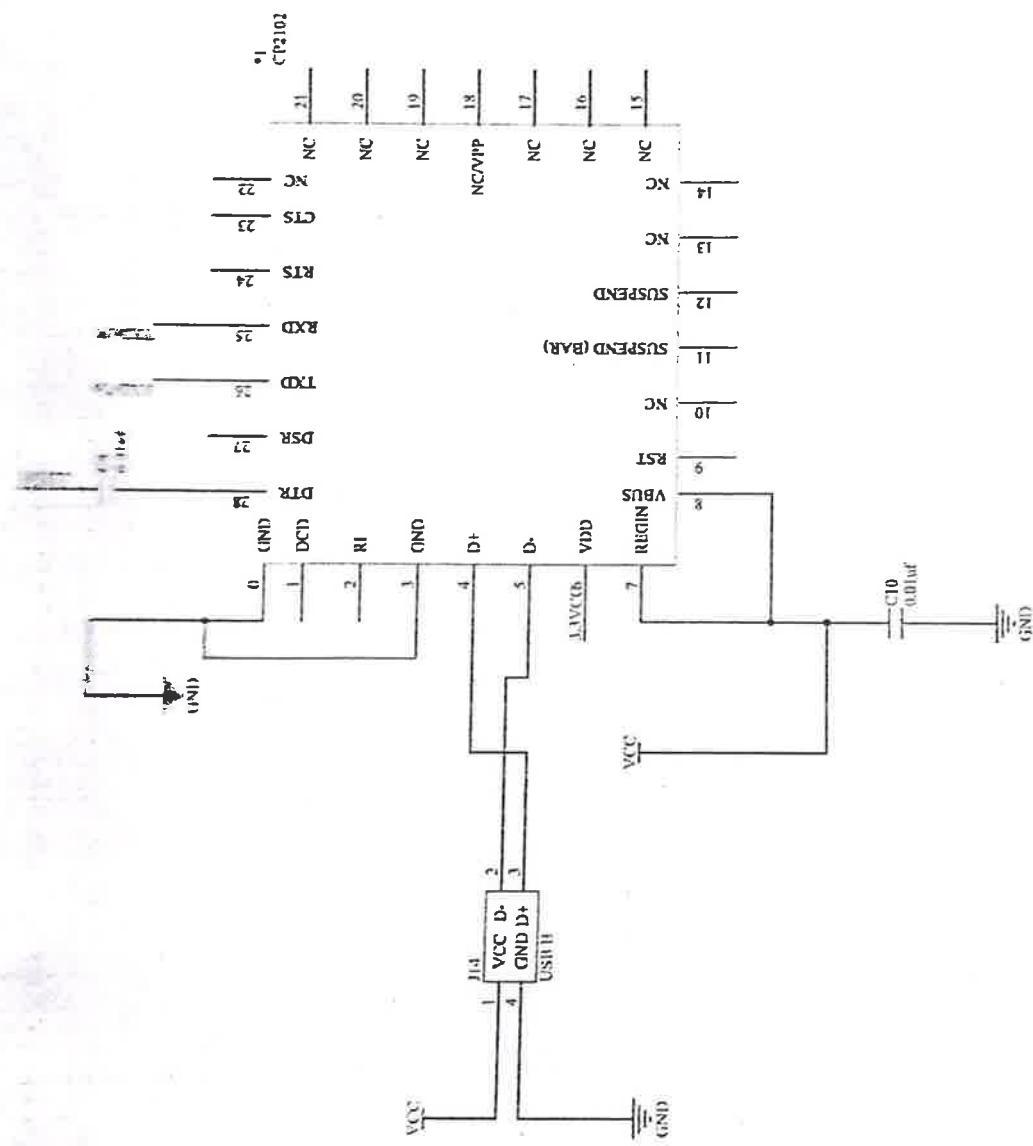
Dated: **22/07/2019**

Recommendations of EGSPCS Committee: **Approved / Not Approved / Suggestions for**

Improvement  
Convener 

1-3-15  
Member(s)   
(2- November/2019)

**Dr. V. MOHAN M.E., Ph.D.,  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam**



Title	Size	Number	Revision
	A		
Date:	11/20/2019	Sheet of	
File:	GSM4y PCB (USB CP2102).SchDoc	Drawn By:	

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

(Perform for making request for issuance billing for Consultancy and Testing Projects)

Project Title/Description : Automatic Water Tank Pump Controller with SMS System

ATMEGA 328 Controller, SIM 900, GSM Modem, Power Circuit 5V and 12V water level Sensors and Cabinet Design

Name of the Client: Mr.R.Ganesan

Approval No: EGSPCS/APP/EEE/2019/101

Dated: 22/07/2019

Billing Amount in Rs. 1,65,000

Payment through Cash /Cheque/DD No. 65,000/- 22.07.2019  
1,00,000/- 20.01.2020

Dated: 20/01/2020

Signature [Signature] 20/01/20

Name of P.I. : M.Vijayakumar, Asso. Prof / EEE

Department : EEE

[Signature]  
Director Consultancy Services/HOD

**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam

Ref: Copy of Job Approval Form





**IndiGuard Systems Pvt.Ltd.**

*Weaving dreams into Reality*

**Training / Design / Consultancy**

CIN : U32109TN2020PTC135361  
GSTIN : 33AAFC16412A1Z8  
Mobile : 94880 12038  
Web : www.indiguard.in  
Email : indiguard@gmail.com

NE : 3/365 WEST STREET, KOLLANGARAI, NADUR POST, THANJAVUR - 614904

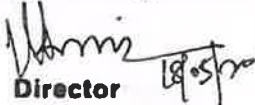
18.05.2020

Dear Consultant,

Greetings for the day. I am introduced myself I am M.Ramya, Managing Director from Indiguard Systems Private limited Thanjavur. In our company required to design and develop the Micro Controller based touch free sanitizer dispenser product for this covid19 pandemic period. Already your institute representative met me and I had explained my requirements. If you arrange the direct meeting we can discuss to further process.

Thanks and Regards

**For INDIGUARD SYSTEMS (P) LTD**

  
Director



**Mobile : 94880 12038**

**Web : www.indiguard.in**

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

Date: 22/05/2020

Subject: One to One Discussion -Regarding

Dear Mrs. M.Ramya,

I'm Mr. S.Sivaramani working as Assistant Professor and Consultant at E.G.S.Pillay Engineering College Nagapattinam. With your inquired, Here, we specialize in Advanced Embedded System, PCB Design and Fabrication and we've helped your consumer product development up to end. Since you're a Managing Director at Indiguard Systems (P) Ltd, Thanjavur, I believe we could collaborate to achieve good consumer product by using our Consultancy.

I'd like to invite you to our office at E.G.S.Pillay Consultancy Services, E.G.S.Pillay Engineering College, Nagapattinam for a meeting to discuss this further. Would either 25/05/2020 or 27/05/2020, 10AM to 4PM work for you?

Please let me know if you'd like to meet at a different time.

Kind regards,

  
Assistant Professor / Consultant

EGSPCS

Contact Number: +91 9994200058

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

Date: 25/05/2020

To

Mrs.M.Ranya,  
MS Indignand Systems (P) Ltd,  
3365, Kollangarai  
Thanjavur.

Dear Mrs.M.Ranya,

Thank you for taking the time to meet with my colleagues from the Department of EEE, EGSPCS and me today regarding your Consumer product development goals. It's been a pleasure talking to you and learning about your Company. With reference to our discussion on Microcontroller based Touch Free Sanitizer Dispenser and further deliberations from there on, please find the quotation for the complete product design including the delivery of PCB and manufacturing files. Looking forward to your formal Purchase order.

Thanks & Regards



**Dr. V. MOHAN M.E., Ph.D.,**  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

**QUOTATION**

REF: EGSPCS/QUOT/EEE/2020/103

Date: 27/05/2020

To

Mrs.M.Ramya,  
M/S Indiguard Systems (P) Ltd,  
3/365, Kollangarai  
Thanjavur.

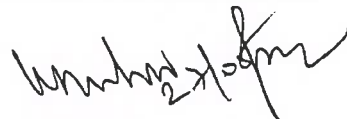
**Sub: Quotation for Microcontroller based Touch Free Sanitizer Dispenser - Reg**

Dear Madam,

Warm Greetings from E.G.S.Pillay Consultancy Services.

With reference to our discussion for Design and Development of **Microcontroller based Touch Free Sanitizer Dispenser** and further deliberations from there on, we are pleased to submit the Quotation for the same. Please feel free to contact us so that we can initiate the proceedings. Looking forward to hear from you.

For E.G.S.Pillay Consultancy Services



**HOD/EEE**

**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
Department of Electrical & Electronics Engg  
E.G.S. Pillay Engineering College - Nagapattinam



**E.G.S.PILLAY CONSULTANCY SERVICES**  
**E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)**  
**NAGAPATTINAM.**

**Commercials for Microcontroller based Touch Free Sanitizer Dispenser**

Sl. No.	Particulars	Quantity	Rate	Amount in Rs
1.	Microcontroller based Mother Board Design and Development	1	15,000	15,000
2.	Wall Mounted Microcontroller based Touch Free Sanitizer Dispenser	20	3,500 each	70,000
			Sub Total	85,000
			Total Payable	85,000

**In Words: Eighty Five Thousand only**

**Account Details:**

Ac/No: 51090901039993

Name : R AND D CONSULTANCY SERVICES

E.G.S. PILLAY ENGINEERING COLLEGE

Bank : CITY UNION BANK

Branch: NAGORE

**List of Deliverables :**

1. Completed and tested hardware prototype as per customer specifications.
2. Fabrication drawings.
3. Complete Design Schematic.
4. PCB fabrication files and Gerber files.
5. Firmware source files and Hex files.

**Product Ownership :**

The IP rights of the designed product belong to the customer. The E.G.S.Pillay Consultancy Services shall not claim any ownership of the developed product.



Branch : EASWARI NAGAR  
 PLOT NO 20/1 NATARAJAPURAM SOUTH COLONY, MEDICAL COLLEGE ROAD  
 EASWARI NAGAR, THIRUVAVUR - 613007  
 IFS CODE: IDIB0001095

VALID FOR THREE MONTHS ONLY  
 28052020  
 D D M M Y Y Y Y

PAY R AND D Consultancy, E.G.S. Pillay Engineering College, भारत के धारक को OR BEARER

RUPEES रुपये Fifty Thousand only ₹ 50,000/-

अदा करें

बैंक अ/c नं. CA 6929989449

FOR INDIGUARD SYSTEMS PRIVATE LIMITED

*[Signature]*  
 AUTHORIZED SIGNATORY  
 Please sign above

CBS Code: 1326

\*Payable At Par At All Our Branches\*

992000002

⑆993937⑆ 613019004⑆ 989449⑆ 29

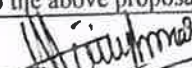
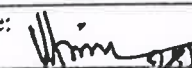
## E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS) NAGAPATTINAM

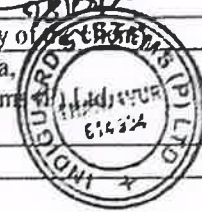
Consultancy Project Agreement	
Project Title:	Microcontroller based Touch Free Sanitizer Dispenser
Name and Address of the Company:	Mrs.M.Ramya, M/S Indiguard Systems (P) Ltd, 3/365, Kollangarai Thanjavur.
Name of the Representative:	Mrs.M.Ramya
Phone: 8489667053	E-mail: ramya.indi@gmail.com

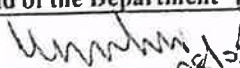

**Principal Consultant\***

S.No	Name of the Consultant	Designation	Department
1*	Mr.M.Vijayakumar	Associate Professor	EEE
2	Mr.S.Sivamani	Assistant Professor	EEE

Project Cost: 85,000	Service Tax: Nil
Total Project Cost: 85,000	
Duration of Proposed Work: one month	
Date of Commencement: 31/05/2020	Date of Completion: 30/06/2020
Scope of Proposed Work: Microcontroller based Touch Free Sanitizer Dispenser is ultimately expected to contribute to contactless hand disinfection in public places and virus infection prevention. Additionally, it is economical and eco-friendly by decreasing waste emissions.	

We agree to the above proposal and also to the EGSPC terms & condition of EGSPEC Nagai.	
Signature: 	Signature: 
(Principal Consultant, EGSPEC, Nagai)	(Authorized signatory of M/S Indiguard Systems (P) Ltd)
Name: Mr.M.Vijayakumar Associate Professor / EEE	Name: Mrs.M.Ramya, M/S Indiguard Systems
Date: 28/05/2020	Date: 28/05/2020


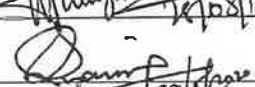


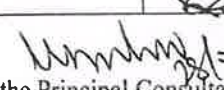
<b>Head of the Department</b>	<b>EGSPC Office Use</b>
Signature: 	Registered Project Number: EGSPCS/QUOT/EEE/2020/102
Date: 28/05/2020	Date: 28/05/2020      Signature: 

**Dr. V. MOHAN M.E., Ph.D.,**  
ASSOCIATE PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S.Pillay Engineering College - Nagapattinam

**E.G.S. PILLAY CONSULTANCY SERVICES  
E.G.S.PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM  
FORM FOR APPROVAL OF CONSULTANCY PROJECT**

1. Name of the Department/Office/Branch: **EEE**
2. Title of the Consultancy Project: **Microcontroller based Touch Free Sanitizer Dispenser**
3. Consultancy Project Category: **I/II/III**
4. Duration of the Consultancy Project (Year/Month/Days): **One month**
5. (i) Date of Commencement **31/05/2020**(ii) Expected Date of Completion **30/06/2020**
6. Detailed Project Report (DPR) attached: **YES / NO**
7. Client's Name and Address : **Mrs.M.Ramya, M/S Indiguard Systems (P) Ltd, 3/365, Kollangarai, Thanjavur.**
8. Type of Client (Tick): **Private Sector/ Govt. Sector/ Public Sector /Foreign Agency / Others (Please Specify)**
9. Payment to be received in :**Full / Part ;Rs.50,000/-Indian Currency /Foreign Currency**
10. Whether MoU/ Agreement Signed with Client (Attach, if any): **Signed / Not Signed**
11. Consent Letter from the Client attached: **YES / NO**
12. Consent Letter from the Consultant(s) attached: **YES / NO**
13. Details of Persons involved in the Consultancy Project:

Name of Consultant(s) along with Designation & Department/Office/Branch	Brief role	Signature
Mr.M.Vijayakumar Associate Professor / EEE	PI	
Mr.S.Sivamani Assistant Professor / EEE	CO - PI	

  
Signature of the Principal Consultant (with date)  
**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**

**Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam**

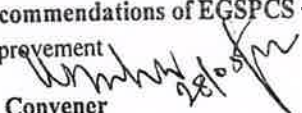
Forwarded by Head of Department/ branch/office

**Director (EGSPCS) Office, EGSPEC**

**Consultancy Project No.:EGSPCS/APP/EEE/2020/102**

**Dated: 28/05/2020**

**Recommendations of EGSPCS Committee: Approved / Not Approved / Suggestions for improvement**

  
Convener

  
Member(s)

**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
**Department of Electrical & Electronics Engg.**  
**E.G.S. Pillay Engineering College - Nagapattinam**





इंडियन बैंक

Indian Bank

Branch: EASWARI NAGAR  
PLOT NO 201 NAIKARAPURAM SOUTH COLONY, MEDICAL COLLEGE ROAD  
EASWARI NAGAR, THANJAVUR - 613007  
IFS CODE: IDIB00THSS

VALID FOR THREE MONTHS ONLY

0 6 0 7 2 0 2 0  
D D M Y Y Y

COLLEGE एररर को OR BEARER

INSTRUMENT FORM 9 PART 1 (FD / CH - 2015)

PAY RANDD CONSULTANCY, E.S.S. PILLAY ENGINEERING COLLEGE

THIRTY FIVE THOUSAND ONLY

शेरा कोर

₹ 35,000/-

FOR INDIGUARD SYSTEMS PRIVATE LIMITED

अर. सं. CA 6929989449  
A/c No.

CBS Code: 1326

*[Signature]*  
AUTHORIZED SIGNATURE

Please sign above

\*Payable At Par At All Our Branches\*

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₹ 9939397 6130190042 9894497 29

**E.G.S.PILLAY CONSULTANCY SERVICES  
E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

(Performa for making request for issuance billing for Consultancy and Testing Projects)

Project Title/Description : Microcontroller based Touch Free Sanitizer Dispenser

12V DC solenoid valve, Arduino Nano Development Board, Ultrasonic Sensor, Power Adapter, Cabinet

Name of the Client: Mrs.M.Ramya

Approval No: EGSPCS/APP/EEE/2020/102

Dated: 28/05/2020

Billing Amount in Rs. 85,000

Payment through Cash /Cheque/DD No. 993997 - 28.05.2020

993939 - 06.07.2020

Dated

Dated: 06/07/2020

Signature

Name of P.I. : M.Vijayakumar, Asso. Prof / EEE

Department : EEE

  
Director Consultancy Services/HOD

Ref: Copy of Job Approval Form

**Dr. V. MOHAN M.E.,Ph.D.,  
PROFESSOR & HEAD  
Department of Electrical & Electronics Engg.  
E.G.S. Pillay Engineering College - Nagapattinam**

**CONSULTANCY WORK**  
**ONLINE TRAVEL BOOKING SYSTEM**

**CUSTOMER DETAIL**

**AFESHEE TRAVEL**  
**Vedharanyam, Nagapattinam - Dt**

**Coordinator(s)**

**Dr.P.Vijayalakshmi**  
**Ms.K.Nagalakshmi**  
**Mr.V.M.Suresh**  
**Mr.R.Anand Babu**

**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**E.G.S PILLAY ENGINEERING COLLEGE**  
**NAGAPATTINAM – 611 002,**  
**TAMIL NADU**

<http://www.egspec.org>

Ph: 04365 – 251112

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**Consultancy Work**

**"ONLINE TRAVEL BOOKING SYSTEM"**

**CONTENTS**

<b>S. No</b>	<b>DETAILS</b>
1.	Requisition Letter with Institution and Department Profile
2.	Requisition Letter from Customer
3.	Covering letter along with Proposal
4.	Acceptance Letter from Customer
5.	Minutes of Meeting – 1
6.	Response Letter and Invoice from Department
7.	Feedback Letter from Customer
8.	Utilization Certificate



**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM  
DEPARTMENT OF INFORMATION TECHNOLOGY**

**18/07/2019**

**Ref. No: EGSPEC/CW/IT/2019/01**

To

**The Managing Director**  
Afeshee Travel,  
Nagapattinam – 611001

Sir

Sub: Consultancy Work – Reg

Greetings from EGS Pillay Engineering College, Nagapattinam

We are happy to inform you that we are doing consultancy work for Diesel Billing and Incentive calculator. This project focuses on management of medical lab data along with billing system. Herewith we send institution and department profile for your reference.

Hence we request you give a positive response from your side.

Thanking You

Yours Sincerely



**Contact Details**

Dr.P.Vijayalakshmi  
Ms.K.Nagalakshmi  
Mr.R.Anand Babu  
Department of IT  
EGS Pillay Engineering College, Nagapattinam  
Email Id: noornilo@gmail.com  
Contact No: 8643856461

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## 1. INSTITUTION PROFILE

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E.G.S Pillay Engineering College is a pioneering Engineering College, established in the year 1995, at Nagapattinam, which is a typical rural and backward area of Tamil Nadu. The institution was created by Late.G.S.Pillay. He was born on 2<sup>nd</sup> January, 1930 in a poor family. He was deprived of education due to his family circumstance. He went to Seychelles when he was 15 years old in search of employment for his livelihood. The E.G.S Pillay Engineering College, Nagapattinam was the first institution established by Mr.G.S.Pillay in the year 1995 aiming at providing world class education in engineering, fostering industrial prosperity and aiding the socio-economic development of the nation at large. The institution was affiliated to Bharathidasan University, Trichy during the years 1995 to 2006 and afterwards the affiliation is being accorded by the Anna University.

The college is located in the significant pilgrimage zone of south India covering Velankanni, Nagore and neighbour state Karaikal-Thirunallar. It is situated close to East Coast Road (ECR) between Karaikal and Nagapattinam and 2 km from Nagore. The nearest Railway station is Nagapattinam which has direct link with Chennai and Trichy. The nearest airport is Trichy which is 120 km away and that of Chennai is 350 km away.

The college is stepping into 19<sup>th</sup> year of excellent service in the year of 2014. Over these years, the college has attained commendable growth by developing itself in every aspect, in terms of academic programs, infrastructure development, staff recruitment, students admission, project and research activities, Transport, Training and Placement, centralized library, Sports and games etc.,

The college offers 6 UG degree program in B.E/B.Tech and 6 PG degree programs in M.E including MBA and MCA.

The Programs are

### **UG Courses:**

- B.E – Mechanical Engineering
- B.E – Civil Engineering
- B.E – Computer Science and Engineering
- B.E – Electrical and Electronics Engineering
- B.E – Electronics and Communication Engineering
- B.Tech – Information Technology

### **PG Courses:**

Master of Business Administration  
Master of Computer Applications  
M.E – Manufacturing Engineering  
M.E – Computer Science and Engineering  
M.E – Communication Systems  
M.E – Power Electronics and Drives

**Vision:**

- Envisioned to transform our institution into a Global Center of Academic Excellence

**Mission:**

- To provide world class education to the students and to bring out their inherent talents
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning and supplementary processes
- To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills
- To have regular interaction with the the industries in the areas of R&D and offer consultancy training and testing services
- To establish center of excellence in the emerging areas of research
- To offer continuing education, and non-formal vocational education programmes that are beneficial to the society.

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## **2. DEPARTMENT PROFILE**

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The department has well qualified and experienced staff and it continually updates its laboratories with modern facilities. The department conducts various seminars and workshop periodically. Various associations are formed related to the department. The students are given different mini-projects in the pre-final year so that their individual ideas can be implemented. The staff and students are encouraged to present papers at various colleges and many have won prizes in competitions.

### **Vision:**

- To produce globally competent information technologist and to inculcate values of leadership and research qualities in them

### **Mission:**

- To provide high quality Education to the students by our competent faculty members, effective teaching learning process and value added courses
- To create centres of excellence by interacting with industries for better employability and to contribute to the society through consultancy and R&D works.
- To improve the soft skill, interpersonal skill, ethical behavior and communication skill of students by involving them in team works and technical events.

### **PROGRAMME EDUCATIONAL OBJECTIVES**

- PEO1: Graduates will have knowledge and competency for successful careers in and related to Information Technology
- PEO2: Graduates will contribute to the design and implementation of software systems to solve real life problems in the society with an understanding of profession ethical standards
- PEO3: Graduates are motivated to proceed to higher studies in Engineering or other Professional fields and promote awareness of the life-long learning
- PEO4: Graduates will work and communicate effectively as individuals and as team members in multidisciplinary projects, research and development activities



## **PROGRAM SPECIFIC OUTCOMES**

The graduates will have

- PSO 1: Apply core aspects of Information Technology and programming paradigms in order to facilitate processing
- PSO 2: Provide solution to real world problems using Structured , Object Oriented Programming Languages and Open Source Software
- PSO 3: Solve Complex IT Problems as a Software Engineer, Software Analyst and Tester in IT and ITeS

## **PROGRAMME OUTCOMES**

Graduates will be able to

PO1: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend

21/08/2019

To

HOD / IT  
Department of Information Technology  
EGS Pillay Engineering College  
Nagapattinam

Sir

Sub: Consultancy Work – Reg

Thank you for your interest. This project idea is very interesting and we can manage our medical data easily.

We accept your request. Kindly send your project proposal.

Thanking you

Kind regards



**Afeshee Travel**

## 1. PROJECT PROPOSAL

01	Title of the Project	:	<b>ONLINE TRAVEL BOOKING SYSTEM</b>
02	Type of the Project	:	Consultancy Work
03	Name & Designation of the Project Coordinators	:	Dr.P.Vijayalakshmi Ms.K.Nagalakshmi Mr.V.M.Suresh Mr.R.Anand Babu
04	Postal Address of the Principal Investigator	:	Old Nagore Road, Thethi Village, Nagore – Post, Nagapattinam – 611 002
05	Contact Phone numbers of the Project Coordinators	:	Contact No. 9486116002 Email: nagalakshmi@egspec.org
06	Name of the Institution / Organization in which the project will be carried out	:	E.G.S Pillay Engineering College, Nagapattinam
07	Customer Details	:	<b>Mr. Mustak Ahamed</b> Proprietor cum CEO
08	Customer Contact Details	:	Ph: 8754935641 md.mustak2052@gmail.com
09	Duration of the Project	:	Aug 2019 – May 2020
10	Total Cost of the Project Proposal (details to be furnished in the prescribed format)	:	Enclosed separately – Annexure 1
11	An abstract, not exceeding one page describing the background, objectives methodology & year wise budget	:	Enclosed separately – Annexure 2
12	Project Work Plan	:	Enclosed separately – Annexure 3
13	Facilities available at the Institution / organization to carry out the project	:	Open Source Lab, Cloud Campus, Android Apps development Centre...

14	Expected Outcome	:	Enclosed separately – Annexure 4
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*V.M. - Jml*

Signature of Project Coordinator(s)

*S. Manikandan*

**S. MANIKANDAN**  
Head of Department  
Department of Information Technology,  
E.G.S. Pillay Engineering College,  
Nagapattinam - 611002  
Signature of the  
Head of the Department  
with Seal



*Dr. S. Ramabalan*

Signature of the  
Head of the Institution  
with Seal

**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**Principal**  
E.G.S. Pillay Engineering College  
Nagapattinam - 611 002



**Annexure - 1****DETAILS OF BUDGET**

<b>S.No</b>	<b>Description</b>	<b>Amount (in Rs.)</b>
<b>A</b>	Salary for Project Coordinators (12 months*Rs.1000/pm)	36000
	Salary for Technical Assistant (12 months * Rs.1000/pm)	12000
<b>Total</b>		<b>48,000</b>
<b>B</b>	Preprocessing and Component Preparation	35,000
<b>Total</b>		<b>35,000</b>
<b>C</b>	Data collection, Requirement Analysis, Designing, Prototype model, Testing and Maintenance	25,000
<b>Total</b>		<b>25,000</b>
<b>D</b>	Travel	5,000
<b>E</b>	Total of A+B+C+D	1,13,000
<b>F</b>	Institutional overhead charges	7,000
<b>G</b>	<b>Total Cost of Project</b>	<b>1,20,000</b>

## **Annexure - 2**

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### **ABSTRACT**

The most important part of the online travel booking system project is its database. The database is full of Cars, Vans and its availability. Online travel booking system is a web based project where a user may search and apply for a travel service or package. The system allows the user to check various travel destinations and choose his destination accordingly. The software system checks for user choice and then queries the database for various available mediums to travel to that destination. The system then loads all that data and puts those choices in front of the user. The user can now choose various ways to reach his destination. When the user chooses Car or Van, the system also allows the user to book tickets to the destination for the desire day and timings. Thus this software system automates the working of a travel agency and allows users to check and book his holidays online through this website. One more important functionality available in this project is the receipt of holiday booking is sent to the users mobile phone on successful booking of his holiday.

**Annexure - 3****Work Plan**

<b>Phase</b>	<b>Cycle</b>	<b>Primary Objective</b>	<b>Scheduled start or milestone</b>	<b>Duration Estimate (calendar days)</b>
Inception / Requirements Analysis	C1	<ul style="list-style-type: none"><li>✓ Analyzing Requirements</li><li>✓ Collecting Project Requirements</li></ul>	May – June 2019	38 days
Elaboration	C2	<ul style="list-style-type: none"><li>✓ Identifying Technical Assistant</li><li>✓ Installation and Setup</li></ul>	July – August 2019	32 days
Designing	C3	<ul style="list-style-type: none"><li>✓ Designing Prototype Model</li><li>✓ Project Review Status Preparation Submission</li><li>✓ Project Modules Preparation</li></ul>	September – October 2019	35 days
Implementation	C4	<ul style="list-style-type: none"><li>✓ Start to develop Coding each Modules</li><li>✓ Preparing Workspace model and verify with abstract.</li><li>✓ Identify the Risk and Measure the values of on it.</li></ul>	November – December 2019	45 days
Construction	C5	<ul style="list-style-type: none"><li>✓ Complete the Project and meet with Abstract</li><li>✓ Objectives and Outcome mapped with the Module</li><li>✓ Project Final Phase meeting</li></ul>	January – February 2020	45 days
Transitions /End	C6	<ul style="list-style-type: none"><li>✓ Preparing Documentation Part</li><li>✓ Final Project Presentation</li></ul>	March – May 2020	40 days

## **Annexure - 4**

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### **Expected Outcomes**

1. Provides the easiest reporting system for medical diagnostic laboratories.
2. A single module fits all system with synoptic reporting.
3. The reports can be fully customized as per the need of the laboratory.
4. The report is generated automatically from the patient information.
5. Have templates customized for each doctor.
6. The report is generated automatically and saves time from manual changes.
7. Historical chart shows the trend for a particular test over a period of time. This can be applied for any test.
8. Option to provide digital signatures on lab results.
9. Single click invoice generation
10. Compute Referral incentive with a single click. Referral is computed automatically from bill.
11. Detailed report on Test wise Turn Around Time.
12. View all outsourced tests with current status .
13. Data can be monitored at Patient wise, Test wise and Lab wise.
14. Shows the top 10 referrals who have provided the most income. Helps in identifying the pattern of referrals.
15. Shows which tests are booked frequently. Helps in planning for additional machines and additional personnel.
16. Shows trend of new patients over time. Helps in planning marketing activities.



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**MINUTES OF MEETING**

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**EGS Pillay Engineering College, Nagapattinam  
Department of IT**

**Minutes of Meeting**

<b>Consultancy Work</b>	
Title	Online Travel Booking System
Meeting No.	01
Date	20/08/2019
No. of Attendees	05
Venue	Department of IT –Faculty Room

**Members Present**

<b>S.No</b>	<b>Name of the Members</b>	<b>Designation/Dept</b>
01	Mustak Ahamed	Director/Afeshee Travel
02	Dr.P.Vijayalakshmi	Prof/IT
03	Ms.K.Nagalaksmhi	As.P/IT
04	Mr.V.M.Suresh	AP/IT
05	Mr.R.Anand Babu	AP/IT

**Points Discussed**

<b>S.No</b>	<b>Points</b>
<b>The following points discussed in project meeting</b>	
01	Dr.P.Vijayalakshmi delivered welcome address
02	Mr.R.Anand Babu discussed project details.
03	Discussed with project details like objective, duration, project status monitoring....
04	Explained various levels in the sense of hardware and software profile and outcomes.
05	Signed Consultancy Assignment Proposal and Agreement form

**Minuted by: Prof.V.M. Suresh**  
**Copy to: Department file and Company**

  
**S. MANIKANDAN**  
HOD/IT  
Head of Department  
Department of Information Technology,  
E.G.S. Pillay Engineering College,  
Nagapattinam - 611002

E.G.S Pillay Engineering College,  
Nagapattinam  
Department of Information  
Technology

Afeshee Travel  
Vedharanyam Nagapattinam - Dt

**Memorandum of Understanding  
(Consultancy Work Order)**

This Memorandum of Understanding is entered on this 20<sup>th</sup> August, 2019 between Afeshee Travel hereinafter called the party of the first part represented by branch manager

AND

Department of Information Technology, E.G.S Pillay Engineering College, Old Nagore Road, Nagapattinam District – 611 002, hereinafter called the party of the second part represented by E.G.S Pillay Engineering College hereinafter called the party of the second part.

We are happy to sign Memorandum of Understanding for the purposes of doing Consultancy work for the title "**ONLINE TRAVEL BOOKING SYSTEM**" the period from August 2019 to July 2020. And we accept and satisfies the requirements and it is very good platform for us.

This MOU effect from on 20/08/2019.

  
On behalf of

Director

  
On behalf of

Head of the Department

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**MINUTES OF MEETING**

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**EGS Pillay Engineering College, Nagapattinam  
Department of IT**

**Minutes of Meeting**

<b>Consultancy Work – Progress Analysis</b>	
Title	Online Travel Booking System
Meeting No.	04
Date	03/01/2020
No. of Attendees	05
Venue	Department of IT –Faculty Room

**Members Present**

<b>S.No</b>	<b>Name of the Members</b>	<b>Designation /Dept</b>
01	Rafeeq	Director/Afeshee Travel
02	Dr.P.Vijayalakshmi	Prof/IT
03	Ms.K.Nagalaksmhi	As.P/IT
04	Mr.V.M.Suresh	AP/IT
05	Mr.R.Anand Babu	AP/IT

**Points Discussed**

<b>S.No</b>	<b>Points</b>
<b>The following points discussed in project meeting</b>	
01	Discussed with major and minor problem displayed.
02	Recommendation and Action taken points are discussed.
03	Discussed with details of further work

**Minuted by: Prof.V.M Suresh  
Copy to: Department file and Company**

  
**HOD/IT  
S. MANTKANDAN  
Head of Department  
Department of Information Technology,  
E.G.S. Pillay Engineering College,  
Nagapattinam - 611002**

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM  
DEPARTMENT OF INFORMATION TECHNOLOGY**

**04/08/2019**

**Ref. No: EGSPEC/CW/IT/2019/01**

**INVOICE**

<b>S.No</b>	<b>Description</b>	<b>Amount (in Rs.)</b>
<b>A</b>	Salary for Project Coordinators (12 months*Rs.1000/pm)	36000
	Salary for Technical Assistant (12 months * Rs.1000/pm)	12000
<b>Total</b>		<b>48,000</b>
<b>B</b>	Preprocessing and Component Preparation	35,000
<b>Total</b>		<b>35,000</b>
<b>C</b>	Data collection, Requirement Analysis, Designing, Prototype model, Testing and Maintenance	25,000
<b>Total</b>		<b>25,000</b>
<b>D</b>	Travel	5,000
<b>E</b>	Total of A+B+C+D	1,13,000
<b>F</b>	Institutional overhead charges	7,000
<b>G</b>	<b>Total Cost of Project</b>	<b>1,20,000</b>

Yours Sincerely



EGS Pillay Engineering College, Nagapattinam  
Department of Information Technology

Utilization Certificate

Name of the Project	Online Travel Booking System
Name of the Coordinator(s)	Dr.P.Vijayalakshmi Ms.K.Nagalakshmi Mr.R.Anand Babu Mr.V.M.Suresh
Name of the Agency	AFESHEE TRAVEL Vedharanyam, Nagapattinam - Dt
Type of Project	Consultancy work
Duration	August 2019 – May 2020
Project Cost	1,20,000

S.No	Description	Amount (in Rs.)
A	Salary for Project Coordinators (12 months*Rs.1000/pm)	36000
	Salary for Technical Assistant (12 months * Rs.1000/pm)	12000
<b>Total</b>		<b>48,000</b>
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D	Travel	5,000
E	Total of A+B+C+D	1,13,000
F	Institutional overhead charges	7,000
G	<b>Total Cost of Project</b>	<b>1,20,000</b>

This certificate is an acknowledgment of the expenditure incurred in executing the consultancy work mentioned above. The accounts are duly submitted to the R&D Cell and verified by the principal.

*V.M. - Jmd*

Name and Signature of the  
Coordinator



*Ramabalan*

Name and Signature of  
Head of Institution  
With seal



Dr. S. RAMABALAN, M.E., Ph.D.,  
Principal  
E.G.S. Pillay Engineering College  
Nagapattinam - 611 002

# SUN FIBER BOATS & SEA FOODS

No.11,Kalpandaga Salai Street, Nagore – 611002

Shri.B.Mohan B.A.,  
Proprietor

GSTIN: 33BJOPM7318D1Z7  
Ph.8610447629

To

27-08-2019

The Principal

EGS Pillay Engineering College

Nagapattinam

Sir,

Sub: FRP boat order – reg.

With reference to our discussion with you and Dr.V.Sivaraman, we are interested to give order to deliver the boat with the following specifications

1. Length 42 feet
2. Breadth 11 feet
3. Height 4 feet

The boat should have two engines with maximum capacity of 50 HP each. The cabin size must accommodate minimum 3 to 4 person with steering wheel and other necessary accessories. We can pay Rs.8,42,000 (Eight lakhs forty two thousand only) for the entire project, if you are interested kindly send your acceptance immediately.

Thanking You



With regards





# E.G.S. PILLAY ENGINEERING COLLEGE(Autonomous)

NAGAPATTINAM - 611 002.

Accredited by NBA (CSE, EEE, Mech, CIVIL, ECE & IT) Accredited by NAAC with 'A' Grade  
An ISO 9001:2008 Certified Institution  
Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai



Dr. S. RAMABALAN M.E.Ph.D.,  
PRINCIPAL

Ref: EGSPEC/SEPTEMBER/2019

12/09/2019

To

Shri.B.Mohan  
Proprietor  
Sun fibre boats and sea foods  
Nagore  
Tamilnadu-611002.

Sir

Sub: Consultancy work-reg

Greeting from E.G.S.Pillay Engineering College, Nagapattinam.

We are happy to inform you that we are doing consultancy work in the field of Mechanical Engineering.

Hence we request you to kindly give a positive response from your side.

Thanking you,

Yours truly,

Dr.S.Ramabalan

**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002.



**E.G.S. PILLAY ENGINEERING  
COLLEGE(Autonomous)**

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**Dr.S.RAMABALAN M.E.Ph.D.,  
PRINCIPAL**

Ref: EGSPEC/SEPTEMBER/2019

24/09/2019

To

Shri.B.Mohan  
Proprietor  
Sun fibre boats and sea foods  
Nagore  
Tamilnadu-611002.

Sir

Sub: Consultancy work-reg

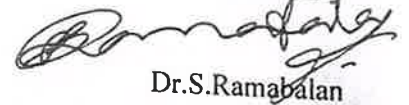
Greeting from E.G.S.Pillay Engineering College, Nagapattinam.

First of all I thank to your company to give this opportunity to do the consultancy work and I agree to come on

26.09.2019

Thank you

Yours truly

  
Dr.S.Ramabalan

Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002

Grams : 'EGSP' Personal : 251114, Office : 251112, Chairman : 224522, Hostel : 251348, Fax : (04365) 251114  
Web site : www.egspec.org





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**Dr. S. RAMABALAN M.E.Ph.D.,  
PRINCIPAL**

Ref: EGSPEC/MECH/OCTOBER/2019

05/10/2019

To

Shri. B. Mohan  
Proprietor  
Sun fibre boats and sea foods  
Nagore  
Tamilnadu-611002.

Sir

Sub: Consultancy work-reg

Greeting from E.G.S.Pillay Engineering College, Nagapattinam.

We are happy to inform you that herewith we attached the technical specification and description of the consultancy work for you reference and fix a date for meeting to discuss about the consultancy work and budget details.

Thank you

Yours truly

Dr. S. Ramabalan

**Dr. S. RAMABALAN, M.E.Ph.D.,  
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Dr.S.RAMABALAN M.E.Ph.D.,  
PRINCIPAL

Ref: EGSPEC/SEPTEMBER/2019

26/09/2019

## Minutes of Meeting

S.No	Content	Particulars
1	Purpose of Meeting	Consultancy work
2	Meeting No.	01
3	Date	26/09/2019
4	No. of Attendees	2

## Board Members

S.No	Name	Address	Signature
1	Shri.B.Mohan	Sun fibre boats and sea foods	
2	Dr.V.Sivaraman	Professor, Mech, EGSPEC	

## Memorandum of Understanding

The memorandum of understanding is entered on this 3rd February, 2019 between Sun fiber boat and sea foods, nagore, Tamilnadu-611002, here in after called the party of the first part represented by Shri.B.Mohan, Proprietor, Sun fiber boat and sea foods.

And

Department of Mechanical Engineering, E.G.S.Pillay Engineering College, Old nagore road, Nagapattinam, Tamilnadu-611002, her in after called the party of the second part represented by Dr.V.Sivaraman, Professor, E.G.S.Pillay Engineering college here in after called the party of the second part. We are happy to sign Memorandum of Understanding for the purpose of doing consultancy work for the title "Design and fabrication of FRP Boat for the use of fishing purpose" The period from September 2019 to March 2020 (6 months). We accept and satisfy the requirement from both side and it is very good platform for us.  
This MOU is effect from 26.09.2019

On behalf of Proprietor



On behalf of EGSPEC  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002.

Grams : 'EGSP' Personal : 251114. Office : 251112, Chairman : 224522, Hostel : 251348, Fax : (04365) 251114  
Web site : www.egspec.org

# SUN FIBER BOATS & SEAFOODS

No.11, Kalpandaga Salai Street, Nagore – 611002

Shri.B.Mohan B.A.,  
Proprietor

GSTIN:33BJOPM7318D1Z7  
Ph.8610447629

REF: EGSPEC/DECEMBER/2019

05/12/2019

To

Dr.S.Ramabalan  
Principal  
E.G.S.Pillay Engineering College  
Nagapattinam  
Tamilnadu-611002

Sir

Sub: Consultancy work-reg

Consultancy second minutes of meeting conducted with below mentioned field experts as on date  
10.6.2019.

Minutes of Meeting

S.No	Content	Particulars
1	Purpose of Meeting	Consultancy work
2	Meeting No.	02
3	Date	05.12.2019
4	No. of Attendees	3

Board Members

S.No	Name	Address	Signature
1	Shri.B.Mohan	Sun fibre boats and sea foods	Moh
2	Dr.S.Ramabalan	Principal & Professor, Mech, EGSPEC	Raj
2	Dr.V.Sivaraman	Professor, Mech, EGSPEC	Siv

# SUN FIBER BOATS & SEAFOODS

No.11, Kalpandaga Salai Street, Nagore – 611002

Shri.B.Mohan B.A.,  
Proprietor

GSTIN:33BJOPM7318D1Z7  
Ph.8610447629

28.03.2020

## Certificate of Appreciation

On behalf of the company I sincerely thank the R&D department of E.G.S.Pillay Engineering College for their excellent consultancy work in manufacturing fibre boat as per our specific requirements. I also thank the Principal Dr.S.Ramabalan and Dr.V.Sivaraman for their timely support and help in finishing the project on time. Our customer was very happy with the boat design and finishing. In future we request you to help to complete similar projects for our company.



For SUN FIBRE BOAT AND SEA FOODS

Authorized Signatory





# SUN FIBER BOATS & SEA FOODS

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27-08-2019

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The boat should have two engines with maximum capacity of 50 HP each. The cabin size must accommodate minimum 3 to 4 person with steering wheel and other necessary accessories. We can pay Rs.8,42,000 (Eight lakhs forty two thousand only) for the entire project, if you are interested kindly send your acceptance immediately.

Thanking You



With regards





**E.G.S. PILLAY ENGINEERING  
COLLEGE(Autonomous)**

**NAGAPATTINAM - 611 002.**

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**Dr.S.RAMABALAN M.E.Ph.D.,  
PRINCIPAL**

**Ref: EGSPEC/SEPTEMBER/2019**

**12/09/2019**

To

Shri.B.Mohan  
Proprietor  
Sun fibre boats and sea foods  
Nagore  
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Dr.S.RAMABALAN M.E.Ph.D.,  
PRINCIPAL

Ref: EGSPEC/SEPTEMBER/2019

26/09/2019

Minutes of Meeting	
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1	Purpose of Meeting
2	Meeting No.
3	Date
4	No. of Attendees

Particulars	
Consultancy work	01
26/09/2019	2

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On behalf of EGSPEC  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002.

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# SUN FIBER BOATS & SEAFOODS

No.11, Kalpandaga Salai Street, Nagore – 611002

Shri.B.Mohan B.A.,  
Proprietor

GSTIN:33BJOPM7318D1Z7  
Ph.8610447629

REF: EGSPEC/DECEMBER/2019

05/12/2019

To

Dr.S.Ramabalan  
Principal  
E.G.S.Pillay Engineering College  
Nagapattinam  
Tamilnadu-611002

Sir

Sub: Consultancy work-reg

Consultancy second minutes of meeting conducted with below mentioned field experts as on date  
10.6.2019.

Minutes of Meeting

S.No	Content	Particulars
1	Purpose of Meeting	Consultancy work
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Board Members

S.No	Name	Address	Signature
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2	Dr.S.Ramabalan	Principal & Professor, Mech, EGSPEC	Prof
2	Dr.V.Sivaraman	Professor, Mech, EGSPEC	Sivaraman

# SUN FIBER BOATS & SEAFOODS

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28.03.2020

## Certificate of Appreciation

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For SUN FIBRE BOAT AND SEA FOODS

Authorized Signatory



**CONSULTANCY PROJECT**

**ON**

**CABLE TV OPERATOR BILLING MANAGEMENT SYSTEM**

**WORK DONE BY**

**Mrs.A.HEMA**

**ASSISTANT PROFESSOR**

**Mr.S.SELVAGANAPATHY**

**ASSISTANT PROFESSOR**

**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**

**E.G.S PILLAY ENGINEERING COLLEGE**

**NAGAPATTINAM - 611 002,**

**TAMIL NADU**

**<http://www.egspec.org>**

**Ph: 04365 - 251112**

**CUSTOMER ADDRESS**

**SRI SAI CABLE TV CABLE VISION**

**No 4, VKV Complex,**

**Sirangudipuliyur, Bypass Rd, Nagore, Sikkal,**

**Tamil Nadu 611104**





## **E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)**

NAGAPATTINAM – 611 002. TAMILNADU, INDIA

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai  
(Accredited by NAAC with 'A' Grade and NBA)

Email: [principal@egspec.org](mailto:principal@egspec.org) website: [www.egspec.org](http://www.egspec.org) Ph: 04365-251112

### **DEPARTMENT OF MCA**

#### **CABLE TV OPERATOR BILLING MANAGEMENT SYSTEM CONTENTS**

<b>S. No</b>	<b>DETAILS</b>	<b>PAGE No.</b>
<b>Main Report</b>		
01	Requisition Letter to Cable operator	
02	Institution Profile	
03	Department of MCA	
04	Acceptance letter from Exam Cell	
05	Project Proposal	
06	Budget	
07	Project Coordinator Details –Appendix -1	
08	Project Review Meeting	
09	Certificate from Company and Payment Derails	



**E.G.S. PILLAY ENGINEERING COLLEGE(AUTONOMOUS)  
NAGAPATTINAM - 611002**

**Accredited by NAAC with 'A' Grade  
(An ISO 9001:2008 Certified Institution)**

**(Approved by AICTE, New Delhi-Affiliated to Anna University, Chennai)**



**Ref. No: EGSPEC/CW/MCA/CAMS/2019/01**

**03/07/2019**

To

Mr. Gopalakrishan  
Sri Sai cable TV Cable  
No 4, VKV Complex,  
Sirangudipuliyur,  
Bypass Rd, Nagore, Sikkal,  
Tamil Nadu 611104

Sir

Sub: Consultancy Work – Reg

Greetings from EGS Pillay Engineering College, Nagapattinam

We are performing some consultancy work in our department to intervene the manual generated works. We come to know that your follows so many manual works during the cable operator system and you have large strength of students, if you want the thighs to be altered we are ready to support you .Also we enclose the details about us . Hence , we kindly request you to give an opportunity

Thanking you

With Regards

[Mrs. A.HEMA]

Contact Details

Mr. A.Hema,  
Assistant Professor,  
Department of MCA,  
E.G.S. Pillay Engineering College,  
Nagapattinam,  
Contact NO 7598690251.

Ref. No: SAISRI/CW/MCA/CO/2019/01

04/08/2019

**To:**

Mrs. A.Hema  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam

Respected Madam

As a conversational expression of gratitude, we received your requisition letter we are in necessitate of (Cable Operate Management System “ software for our Department of foreshorten the manual work. Since there are more number of customer in village I, hope your project will satisfy our requirements as We are contrived to accept your request , we are awaiting for more details about your project as early possible

Thank you

Sincerely,

  
S. Gopalakrishnan

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## 1. INSTITUTION PROFILE

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E.G.S Pillay Engineering College is a pioneering Engineering College, established in the year 1995, at Nagapattinam, which is a typical rural and backward area of Tamil Nadu. The institution was created by Late.G.S.Pillay. He was born on 2<sup>nd</sup> January, 1930 in a poor family. He was deprived of education due to his family circumstance. He went to Seychelles when he was 15 years old in search of employment for his livelihood. The E.G.S Pillay Engineering College, Nagapattinam was the first institution established by Mr.G.S.Pillay in the year 1995 aiming at providing world class education in engineering, fostering industrial prosperity and aiding the socio-economic development of the nation at large. The institution was affiliated to Bharathidasan University, Trichy during the years 1995 to 2006 and afterwards the affiliation is being accorded by the Anna University.

The college is located in the significant pilgrimage zone of south India covering Velankanni, Nagore and neighbour state Karaikal-Thirunallar. It is situated close to East Coast Road (ECR) between Karaikal and Nagapattinam and 2 km from Nagore. The nearest Railway station is Nagapattinam which has direct link with Chennai and Trichy. The nearest airport is Trichy which is 120 km away and that of Chennai is 350 km away.

The college is stepping into 19<sup>th</sup> year of excellent service in the year of 2014. Over these years, the college has attained commendable growth by developing itself in every aspect, in terms of academic programs, infrastructure development, staff recruitment, students admission, project and research activities, Transport, Training and Placement, centralized library, Sports and games etc.,

The college offers 6 UG degree program in B.E/B.Tech and 6 PG degree programs in M.E including MBA and MCA.

The Programs are

### **UG Courses:**

- B.E – Mechanical Engineering
- B.E – Civil Engineering
- B.E – Computer Science and Engineering
- B.E – Electrical and Electronics Engineering
- B.E – Electronics and Communication Engineering
- B.Tech – Information Technology



**PG Courses:**

Master of Business Administration  
Master of Computer Applications  
M.E – Manufacturing Engineering  
M.E – Computer Science and Engineering  
M.E – Communication Systems  
M.E – Power Electronics and Drives

**Vision of the Institute**

Envisioned to transform our institution into a "Global Centre of Academic Excellence"

**Mission of the Institute**

- i. To provide world class education to the students and to bring out their inherent talents
- ii. To establish state-of- the-art facilities and resources required to achieve excellence in teaching-learning and supplementary processes
- iii. To recruit competent faculty and staff and to provide opportunity to upgrade their
- iv. knowledge and skills
- v. To have regular interaction with the Industries in the area of R&D and offer consultancy, training and testing services
- vi. To establish centers of excellence in the emerging areas of research
- vii. To offer continuing education and non-formal vocational education programmes that are beneficial to the society

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## 2. DEPARTMENT PROFILE

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The department of computer applications focuses on making industry ready IT professionals by imparting quality computer education along with excellent interpersonal skills. It offers 3 years Full time MCA course to the students. Started in the year of 2001, the course was approved by Bharathidasan University, Trichirappalli. In 2003, Anna University, Chennai recognized and approved the course. The current intake of students is 60 per academic year.

### **DEPARTMENT VISION**

To produce software professionals with Academic Excellence in Computer Applications

### **DEPARTMENT MISSION**

- To make software professionals and entrepreneurs by imparting quality computer education.
- To promote inter-disciplinary research among the faculty and the students to create state of art research facilities.
- To prepare the students to be professionally competent to face the challenges in the industry.

To promote quality and ethics among the students.

### **Programme Educational Objectives (PEO)**

The PEO of MCA programme are as follows.

PEO1: To employ solid foundation in mathematical and computing fundamentals and techniques to develop software solutions.

PEO2: To apply good computing breadth so as to comprehend, analyze, design and create computing solutions for the real-life problems and entrepreneurial skills with arich set of communication, teamwork and leadership skills to excel in their profession.

PEO3: To show continuous improvement in their professional career through life-long learning, understand the human values and ethics.

PO11: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

PO12: Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

## V. Program Specific Outcomes (PSO)

### Graduates will be able to

**PSO 1:** Apply software engineering principles in the design and development of web and mobile applications

**PSO 2:** Manage and analyze huge volume of data in real world problems

### Features of the Department

- Ensures quality and value based education
- Provides career guidance by the associating experts in the different fields
- Is renowned for its meticulous planning concerted efforts, competent and committed teaching faculty
- Enables extension / guest-lectures by the expertise in the various disciplines concerned
- Conducts academic programmer like tests, symposia, workshops, seminars etc
- Academic competitions like Paper presentation, essay writing, quiz etc.,
- Tours of academic interests
- Taps innovative talents, interests of its wards
- Conducts Weekly test, Short Answer Test and offers continuous evaluation of the performance of the students
- Remedial classes for slow learners
- Time to Time counseling by mentors
- Challenges students with extensive coaching of wide-ranging difficulty levels by conducting APTITUDE, REASONING tests
- Conducts class committee meetings
- Holds Parent-Teacher meetings
- Encourage the students to donate blood
- Conducts ENGLISH LITERARY ASSOCIATION PROGRAMME for the staff and students
- Ensure students participation in the Women Empowerment cell programs
- Sponsors the faculty for International/National Conferences/Seminars/Workshops, etc
- Personality development programs are conducted to improve student's soft skills
- Students are encouraged to do mini projects
- The department library has an extensive collection of academic books in the areas of latest technologies
- The department has stable, highly qualified and experienced staff members in the staff student ratio of 1:15

#### **IV Program Outcomes (PO)**

##### **Graduates will be able to**

PO1: Apply knowledge of computing fundamentals, computing specialization, mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

PO2: Identify, formulate, research literature, and solve *complex* computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

PO3: Design and evaluate solutions for *complex* computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

PO4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to *complex* computing activities, with an understanding of the limitations.

PO6: Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practice.

PO7: Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional.

PO8: Demonstrate knowledge and understanding of the computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO9: Communicate effectively with the computing community, and with society at large, about *complex* computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

PO10: Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.



## **Laboratory facilities**

Each laboratory is fully equipped to meet the requirement of Anna University Syllabi. The students can train themselves in the Laboratories with the guidance of the faculty during and after the college hours. The laboratory facilities are constantly upgraded to take care of the technological Changes in the respective disciplines.

### **Department Servers and Software Details**

- Microsoft Windows Server 2003
- Linux Fedora v19
- Oracle 11i Data base Server Workstations
- 471 Core i3 and Pentium based systems with multimedia facilities
- Capable of getting connected to all server and every other systems over TCP/IP backbone
- All systems having access with Internet/Intranet
- Software
- Microsoft Windows Server 2003
- CentOS 5.3 (For C & C++ programming and Script languages)
- Free BSD
- Oracle 11i
- IBM DB2
- PowerBuilder
- Sybase
- Microsoft Office 2007
- Microsoft Visual Studio 6.0
- Microsoft Visual Studio 2010
- Mathematica
- IDL (Image Processing Tools)
- MathCAD
- IBM Rational Suite and IBM Rational Architect
- Macromedia Flash and Dreamweaver
- Front Page Express
- Novell Netware
- Adobe Photoshop
- Network Simulator – 2 (Free Ware for Both Windows and Linux)
- .netbeans Developer
- Sun JDK, J2EE and J2ME
- Internet Facilities
- 16 Mbps leased line from Reliance

### **Priority Research Areas**

1. Cloud Computing
2. Data Analysis
3. Data Mining and Warehousing
4. Network Security
5. Image Processing
6. Mobile Application Development
7. Ubiquitous Computing
8. Sensor Computing

## Annexure V

E-Mail : [karusnehem@gmail.com](mailto:karusnehem@gmail.com)  
Mobile:7598690251

### Mrs.A.Hema

---

#### Objective

Driven by strong passion towards teaching, seeking challenging opportunity as teaching professional in a reputed educational institution.

#### Academic Profile

- ✓ Master of Philosophy (**M.Phil**), Alagappa University, karaikudi.
- ✓ Master of Computer Applications (**MCA**), Madurai Kamaraj University, palkalai Nagar, Madurai.  
Passed out with first class during 2001 securing 66% of marks.
- ✓ Bachelor of Chemistry (B.Sc), Sri Meenakshi college for Women, Madurai, Affiliated to Madurai Kamaraj University.  
Passed out with first class during May 1995 securing 86% of marks.
- ✓ **HSC**, E.V.R. Girls Higher Secondary School  
Passed out during **March 1992** securing 66% of marks.
- ✓ **SSLC** St. Antony's Girls High School, Koodal Nagar, Madurai..  
Passed out during **April 1990** securing 80% of marks.

#### Subjects Handled

- ✓ Middleware Technologies
- ✓ Object Oriented Programming
- ✓ Software Engineering
- ✓ Software Project Management
- ✓ Computer Graphics and Multimedia Systems
- ✓ Operating Systems
- ✓ Computer Networks
- ✓ Software Testing
- ✓ Service Oriented Architecture

#### Research Interest

- ✓ Image Processing and Biometrics
- ✓ Cloud Computing
- ✓ Computer Networking

## Paper Publications

### Journal

- ✓ **“State-of-the-Art Invisible Watermarking Technology within Media Files”** published in **“CIIT International journal of Artificial Intelligent Systems and Machine Learning”** – August 2011 ISSN 0974- 9667.

### IEEE Xplore

- ✓ **“SAAS flavoured cloud computing implementation in Indian universities an Imagineering thought”** published in **“IEEE Xplore Digital Library”** – June 2012 ISSN 978-1-4673-0213-5

### Conference

- ✓ **“National conference on advanced computing and communication technologies “** organized by E.G.S Pillay Engineering College, Nagapattinam – 2009 .
- ✓ **“International conference on advances in engineering, and technology”** organized by E.G.S Pillay Engineering College, Nagapattinam – March 2011 .
- ✓ **“International conference on advanced in engineering ,science and management”** organized by E.G.S Pillay Engineering College, Nagapattinam – March 2012 .
- ✓ **PHP Programming workshop using “DRUPAL TOOL”-Preconference** organized by E.G.S Pillay Engineering College, Nagapattinam – March 2013 .
- ✓ **“Efficient Human Skin Detection using a fusion approach”** published in **“IEEE International Conference on Research and Development Prospects on Engineering and Technology ICRDPET-2013”** organized by E.G.S Pillay Engineering College, Nagapattinam – March 2013 .
- ✓ **“Analysis study of content image retrieval versus context image retrieval”** published in **“CSI and ISTE sponsored national conference NCASEM -2013”** organized by E.G.S Pillay Engineering College, Nagapattinam – 28<sup>th</sup> September 2013. .
- ✓ **“Retinal Layer Analysis From 3-D oct”- Published in “International conference on Advances in engineering and technology”** organized by E.G.S Pillay Engineering College”, Nagapattinam – March 2014 .
- ✓ **“Farwell Brain Fingerprinting a new paradigm in criminal investigations”** Published in **“IJARET 2014”- organized by E.G.S.PillayEngineering College, Nagapattinam – May 2014.**
- ✓ **“Image Tamper Detection Based On Demosaicing Arifacts” – ICRDICT** organized by E.G.S.PillayEngineering College, Nagapattinam May 2015.
- ✓ **A Survey Paper on Virtual Machines Overloaded in Bigdata Computing Using Cyber Algorithm OIEEE ICIOT** organized by E.G.S.PillayEngineering College, Nagapattinam 2017.
- ✓ **A Survey Paper on Cloud Computing Security and Outsourcing Data Mining in Cloud Plat**

**Form-IEEE ICIOT organized by E.G.S.PillayEngineering College,Nagapattinam 2017.**

- ✓ **Review on Multidimensional indexing Using R\*-Tree Algorithm for efficient content Based image retrieval.-ICETMSH organized by E.G.S.PillayEngineering College,Nagapattinam 2016.**
- ✓ **Vital Role Using Digital Watermarking with Data Security-ICEMSH organized by E.G.S.PillayEngineering College,Nagapattinam 2016.**
- ✓ **Mechanized Palm Detection and Prediction(PalMISTRY) on Image Processing Techniques-ICETMSH organized by E.G.S.PillayEngineering College,Nagapattinam 2016.**
- ✓ **SOA with Cloud Computing in Business Application-NCRTCSEA,EGSPEC,Department of CSE-2016.**

### Seminar

- ✓ **“Research directions in cloud computing” organized by A.V.C College of Engineering, Mayiladuthurai, -2011 .**
- ✓ **“A Novel Security model for storing sensitive data on the cloud” published in “National level seminar on IT Applications for Business and Service organization” organized by R.V.S College of Computer Applications, Karaikal – March 2012.**
- ✓ **Recent Trends in “BIG DATA ANALYTICS “ Organized by SIRISSAC NEWTON ARTS AND SCIENCE COLLEGE.Nagapattinam-2016.**

### **Courses Attended**

#### Faculty Development Program

- ✓ **“Free Open Source Software-FOSS” FDP organized by by E.G.S Pillay Engineering College, Nagapattinam on 09-04-2012.**
- ✓ **“Research Directions in Cloud Computing ” State level FDP organized by A.V.C College of Engineering, Mayiladuthurai on 24-09-2011.**
- ✓ **“Cloud Computing and its Applications” State level FDP organized by E.G.S Pillay Engineering College, Nagapattinam on 09-04-2012.**
- ✓ **“XML and Web Services” one week Anna University, Center for Faculty development sponsored FDP organized by A.V.C College of Engineering, Mayiladuthurai from 03-12-2012 to 09-12-2012.**
- ✓ **“Data Warehousing and Data Mining” one week Anna University, Center for Faculty development sponsored FDP organized by E.G.S Pillay Engineering College, Nagapattinam from 02-12-2013 to 08-12-2013.**
- ✓ **“Recent trends in software engineering” organized by Periyar maniammai university on 2013.**



- ✓ **“CS2402 – Mobile And Pervasive Computing”** Organized by computer Engineers Association, Department of CSE, E.G.S. Pillay Engineering College, Nagapattinam From 11.05.2015 to 17.05.2015.
- ✓ **“Data Analytics”**-CSI Sponsored Faculty Development Programme Organized by EGSPEC- Department of IT.
- ✓ **IBM Bluemix**-Conducted by ICT Academy of TamilNadu, 2016.

#### Staff Development Program

- ✓ **“Advances in Research and Development of Autonomous Robots”** two weeks AICTE sponsored SDP organized by E.G.S Pillay Engineering College, Nagapattinam from 07-05-2012 to 18-05-2012.

#### Short Term Training Programme:

- ✓ **Data Science – Hands on Session with Open Source Tools** Organized by A.V.C. College of Engineering-2016.
- ✓ **Web based Content Development Using Moodle through ICT**-Organized by EGSPEC, Department of CSE, 2016.

#### Workshop

- ✓ **“PHP Programming workshop using “DRUPAL TOOL”-Preconference”** workshop organized by E.G.S Pillay Engineering College, Nagapattinam, on 2013.
- ✓ **“Internal colloquium on Biovision”** workshop organized by UGC-Academic Staff college, Bharathidasan University, Trichy and A.D.M. College for Women (Autonomous), Nagapattinam, on 16-03-2006 and 18-03-2006.
- ✓ **“Java, Don Net, and Embedded”** workshop organized by IWIZ BLUECHIP -2010.
- ✓ **“C# ,.Net”** workshop organized by A.V.C. College of Engineering on 27-08-2013 and 28-08-2013.
- ✓ **“Effective Research in Computer Technology”** one day National workshop organized by Bharathiyar college of Engineering and Technology, Karaikal on 16-02-2013.
- ✓ **“PHP Programming using Drupal Tool”** Pre conference workshop organized by E.G.S Pillay Engineering college, Nagapattinam on 28-03-2013.
- ✓ **“Computer Programming”** workshop organized by A.V.C. College of Engineering on 27-08-2013 and 28-08-2013.
- ✓ **“National workshop on effective research in computer”** organized by Bharathiyar college of Engineering and Technology, Karaikal on 2013.
- ✓ **PHP and MySQL** -workshop organized by Bharathiyar college of Engineering and Technology, Karaikal on 2014.
- ✓ **.Net framework and web application development** -workshop organized by Ocean software

solution on 2014

- ✓ IPR Issues in Cloud Resource Provisioning"-Two days workshop Organized by Department of Computer Science,Pondicherry University Karaikal Campus,3<sup>rd</sup>&4<sup>th</sup> September,2015.
- ✓ SAP- Systems Applications and Products in Data Processing-Workshop Organized by Purple Pro Info Tech,Coimbatore.7.09.2015 & 8.09.2015
- ✓ Exploring the Power of 'C' –Workshop Organized by A.V.C.College of Engineering,18.09.2015
- ✓ Big Data Tools:Hive and Pig-Workshop Organized by A.V.C.College of Engineering College. 9.10.2015
- ✓ Text Analytics-Two day National Workshop organized by Pondicherry University karaikal Campus-2016.
- ✓ Research Methodology and funding opportunities-One day Workshop organized by EGSPEC, 2017.

#### **Awards won**

- ✓ won cash award for more than 5 times for producing 100% subject result
- ✓ won cash award for more than 6 times for producing more than 90% subject result

#### **Membership in Professional Bodies**

- ✓ Life Member in the "Indian Society for Technical Education" (ISTE), M.No:LM73853

**Personal Details**

Name : Hema. A

Gender : Female

Date of Birth : December 10<sup>th</sup> 1976

Nationality : Indian

Community : BC

Father's Name : T.G.Ananga Veera Raman

Mother's Name : R.Govindammal

Marital Status : Married

Permanent Address : Yadavapuram,  
Thethakudi South sethi,  
Vedaraniam-641 809

Hobbies : Reading Books, surfing on the internet .

**References**

Prof.Mrs.J.Vanitha,  
Associate Professor,  
Department of Computer Science  
E.G.S.Pillay Arts and Science College,  
Nagapattinam – 611 001

Mobile : 9443728519

Mail : vani77\_muthu@yahoo.co.in


**Declaration**

I hereby declare that above furnished information are true to the best of my knowledge and belief.

Date:

Place: Nagapattinam

Yours truly,

  
(Mrs.A..Hema)



# S. SELVAGANAPATHY MCA, (PH.D)

ASSISTANT PROFESSOR

EMAIL: sganapathy84@gmail.com

MOBILE: + 91 9487691901, 9710196914.

## OBJECTIVE

Driven by strong passion towards teaching, seeking challenging opportunity as teaching professional for giving the practical knowledge which makes the student's career progressive in a reputed educational institution.

## SKILLS

- VMWare certified Trainer
- Soft Skill Trainer
- C Programming Trainer
- R Programming
- PHP, Dot NET
- Leadership
- Social Entrepreneur

## TEACHING EXPERIENCE (5 YEARS 8 MONTHS)

**E.G.S PILLAY ENGINEERING COLLEGE, NAGAPATTINAM.**

From 16-07-2012 To Till Date.

Working as a teaching faculty in Computer Applications Department.

## INDUSTRIAL EXPERIENCE (3 YEARS 5 MONTHS)

**SEA CONSORTIUM SHIPPING INDIA PVT LTD, CHENNAI.**

From 01-04-2011 to 10-07-2012

Worked as a Software Developer

**SPAZIO IMPEX PVT LTD, CHENNAI.**

From 02-01-2010 to 28-02-2011

Worked as a Software Developer

**REPUTE EXPRESS INDIA PVT LTD, CHENNAI.**

From 05-02-2009 to 10-12-2009

Worked As A Software Developer

## EDUCATION

- Pursing Ph.D (Part Time) in Anna University, Chennai.
- **M.C.A.** Passed Out In 2008 With 73% From Bharathiyar College Of Engineering And Technology, Thiruvettakudi, Karaikal, Pondicherry University.
  - Successfully organized national level technical symposium.
  - Received best out gone student award.
- **B.C.A** Passed Out In 2004 With 59% From T.B.M.L Arts And Science College, Porayar, Bharathidasan University.



SS

S.SELVAGANAPATHY MCA, (PH.D)

1BASSISTANT PROFESSOR

EMAIL: SGANAPATHY84@GMAIL.COM

MOBILE: + 91 9487691901, 9710196914.

## VOLUNTEER EXPERIENCE OR LEADERSHIP

- Successfully Organized Two International and Three National Conferences.

## COMMUNICATION

- Given one day guest lecture at Bharathiyar College of Engineering and Technology on the topic "R Programming" on 15-07-2017.

## ACHIEVEMENTS

- ✓ Received sponsor from TNSCST to conduct one week workshop on **VMware virtualization**.
- ✓ Produce more than 95% results in all university exams till now.
- ✓ Successfully counsel the students to become entrepreneur and guiding the innovative consultancy projects.
  - As of now 3 startup company's started by our guidance.

## CERTIFICATIONS & COURSES

- ✓ Two Weeks FDP on C Programming "**E-Box**", E-Box Academy, Coimbatore , 2014. Got Certificate for C Programming Trainer.
- ✓ Two Weeks FDP on "**VSphere**", VMware Bangalore, 2015. Got Certificate for VMWare VSphere Trainer.
- ✓ One Week National Workshop on Data Analytics with "**R Programming**", Annamalai University, Chidhambaram, 2016.
- ✓ Two Week FDP on **Entrepreneurship Development** Sponsored by NSTEDB
- ✓ One Week Skill development program and Entrepreneur for **PM Yuva Yojana Entrepreneurship Faculty educator program** on
- ✓ 2017. Got Certificate PM Yuva Yojana Faculty Felicitator



SS

**S.SELVAGANAPATHY** MCA, (PH.D)

1BASSISTANT PROFESSOR

EMAIL: SGANAPATHY84@GMAIL.COM

MOBILE: + 91 9487691901, 9710196914.

## CONFERENCE ATTENDED

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- International conference on advanced in engineering, science and management @ 2012.
- International conference on Advances in engineering and technology @ 2014.
- International conference on research and development in information & communication technology @2016.
- National Level seminar on "recent trends in BIG DATA
- National conference on recent trends in computer science and applications

## PUBLICATIONS

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- "Automatic Image Tagging using template model for domain specific images", IJARET, 2014.
- "Farwell Brain Fingerprinting A New Paradigm In Criminal Investigations", IJAER, 2015.

## SUBJECT & LABORATORY HANDLED

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- Software Project Management and Project Development Lab
- Computer Graphics and Multimedia and Multimedia Lab
- Object oriented analysis and design & Case tools Lab
- Computer Organization
- Professional Ethics
- Object Oriented Programming Lab

SS

**S.SELVAGANAPATHY** MCA, (PH.D)

1BASSISTANT PROFESSOR

EMAIL: SGANAPATHY84@GMAIL.COM

MOBILE: + 91 9487691901, 9710196914.

## HONORS AND AWARDS

---

- Won cash award for 6 times for producing 100% subject result.
- Won cash award for 3 times for producing more than 95% subject result.
- Best Project selected during Internal Quality Audit.
- Organized and involved in training the junior team members.

## RESPONSIBILITIES HELD

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- Class coordinator.
- Department NBA coordinator.
- Department Placement coordinator.
- International conference coordinator.
- Discipline committee member.
- Coordinator for various department programs.
- Department EDC Coordinator come PM YUVA YOJANA trainer.

## REFERENCE

---

Mrs. J. Vanitha, (Associate Professor & Head),  
Department of Computer Applications,  
E.G.S Pillay Engineering College, Nagapattinam 611 002.  
Mobile: 9443728519 Mail: [vanitha@egspec.org](mailto:vanitha@egspec.org)

## DECLARATION

---

I hereby declare that the above information is true to the best of my knowledge and belief.

**Yours Sincerely,**



**(S. Selvaganapathy)**



**E.G.S. PILLAY ENGINEERING COLLEGE(AUTONOMOUS)**  
**NAGAPATTINAM - 611002**  
**Accredited by NAAC with 'A' Grade**  
**(An ISO 9001:2008 Certified Institution)**  
(Approved by AICTE, New Delhi-Affiliated to Anna University, Chennai)



**Ref. No: EGSPEC/MCA/CW/CAMS/2019/02**

**Date: 26.07.2019**

To

Mr. Gopalakrishan  
Sri Sai cable TV Cable  
No 4, VKV Complex,  
Sirangudipuliyur,  
Bypass Rd, Nagore, Sikkal,  
Tamil Nadu 611104

**Respected sir**

We have attached accomplished project proposal according to your kind reference. we hope that our project will be successful if have good communication between us. So I kindly request you to fix one date for discussing the project details .in this meeting we will discourse the following project requirements, documents

We are waiting for your positive reply

**Thanking you**

With regards

  
**[Mrs. A.HEMA]**

Contact Details  
Mrs.A.HEMA  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam  
Contact NO 7598690251



Ref. No: SAISRI/CW/MCA/CO/2019/02

10/11/2019

**To:**

Mrs. A.Hema  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam

Respected Madam

Thanks for your concern, it will be favour for us if your can unionize the review meeting for the discussion for project proposal on 22.11.2019 . We here by put the demand of following details such as project coordinators details, evaluations model and completed status for each module. I hope two move review will be arranged to check the progress of your consultancy work. It will be tentatively on 06.12.2019 and 12.02.2020 . We Would like to furnish the following requirements of us

Thank you

Sincerely,

  
S. Gopalakrishnan

## 1. PROJECT PROPOSAL

01	Title of the Project	:	Cable TV operator Billing Management System
02	Type of the Project	:	Consultancy Work
03	Name & Designation of the Project Coordinators	:	Mrs.A. HemaAP/MCA Ms.SelvagapathyhyAP/MCA
04	Postal Address of the Principal Investigator	:	Old Nagore Road, Thethi Village, Nagore - Post, Nagapattinam - 611 002
05	Contact Phone numbers of the Project Coordinators	:	Mrs. A.Hema AP/MCA Project Coordinator Contact No. 7598690251 Email:hema@egspec.org
06	Name of the Institution / Organization in which the project will be carried out	:	E.G.S Pillay Engineering College, Nagapattinam
09	Duration of the Project	:	July 2019 - April 2020
10	Total Cost of the Project Proposal (details to be furnished in the prescribed format)	:	Enclosed separately - Annexure 1
11	An abstract, not exceeding one page describing the background, objectives methodology & year wise budget	:	Enclosed separately - Annexure 2
12	Project Work Plan	:	Enclosed separately - Annexure 3
13	Facilities available at the Institution / organization to carry out the project	:	Open Source Lab, Cloud Campus, Android Apps development Centre...
14	Expected Outcome	:	Enclosed separately - Annexure 4

Place :Nagapattinam

Date: 03.09.2019 .

Signature of the

Head of the Department

with Seal

**Dr.J. VANITHA**  
Head of the Department  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam - 611 002.

Signature of Project Coordinator(s)

Signature of the

Head of the Institution

with Seal

**Dr. S. RAMABALAN, M.E., Ph.D.,**  
PRINCIPAL  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002.

## Annexure - 1

### DETAILS OF BUDGET

A	Description	Total(Rs)
	Expenses Recurring /Non -Recurring(salary/cost of labor, software development, Travel and others	6000
B	Testing & Documentation charge	500
C	Institutional overhead charge	850
D	Total Charges(A+B+C)	7350
E	Service Tax(12%)	882
F	Education Cess(3%) of(Service Tax)	26
G	Total Amount	8,258

## Annexure - 2

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### ABSTRACT

"Cable TV Operator Billing Management System" is integrated and automation software for cable operators. Cable operators will distribute TV channels to their customers for that they charge some money monthly. To maintain their customers and the number of users this software provides automation. In this COM System, they can main their staff member's details and customer details. By using this COM System they can divide their areas macro parts to micro parts. By using this system they can meet their business requirements. Cable Operators once they divided their areas into micro parts then they can assign their staff members to take care of their micro part areas.

### Software Requirements:

OPERATING SYSTEM	: WIN NT
FRONT END	: VB.NET
BUSINESS LOGIC	: VB.NET
DATABASE	: MS.Access

### Hardware Requirements:

PROCESSOR	: P3 or HIGHER
RAM	: 512MB
HARD DISK	: 20GB



**Annexure - 3****WORK PLAN**

<b>Phase</b>	<b>Cycle</b>	<b>Primary Objective</b>	<b>Scheduled start or milestone</b>	<b>Duration Estimate</b>
Inception / Requirements Analysis	C1	<ul style="list-style-type: none"><li>✓ Analyzing Requirements</li><li>✓ Collecting Project Requirements</li></ul>	July 2019	30days
Elaboration	C2	<ul style="list-style-type: none"><li>✓ Identifying Technical Assistant</li><li>✓ Installation and Setup</li></ul>	August 2019	31days
Designing	C3	<ul style="list-style-type: none"><li>✓ Designing Prototype Model</li><li>✓ Project Review Status Preparation Submission</li><li>✓ Project Modules Preparation</li></ul>	September 2019	31days
Implementation	C4	<ul style="list-style-type: none"><li>✓ Start to develop Coding each Modules</li><li>✓ Preparing Workspace model and verify with abstract.</li><li>✓ Identify the Risk and Measure the values of on it.</li></ul>	October 2019	30 days
Construction	C5	<ul style="list-style-type: none"><li>✓ Complete the Project and meet with Abstract</li><li>✓ Objectives and Outcome mapped with the Module</li><li>✓ Project Final Phase meeting</li></ul>	November 2019	31days
Transitions /End	C6	<ul style="list-style-type: none"><li>✓ Preparing Documentation Part</li><li>✓ Final Project Presentation</li></ul>	December 2019	31days

**EXPECTED OUTCOMES**

- External Outputs, whose destination is outside the organization, Internal Outputs whose destination is within organization and they are the user's main interface with the computer.
- Operational outputs whose use is purely within the computer department.
- Interface outputs, which involve the user in communicating directly



**E.G.S. PILLAY ENGINEERING COLLEGE(AUTONOMOUS)  
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(Approved by AICTE, New Delhi-Affiliated to Anna University, Chennai)



**Ref. No: EGSPEC/CW/MCA/COMS/2019/03 Date: 19.09.2019**

To

Mr. Gopalakrishan  
Sri Sai cable TV Cable  
No 4, VKV Complex,  
Sirangudipuliyur,  
Bypass Rd, Nagore, Sikkal,  
Tamil Nadu 611104

Respected sir

SUB : Consultancy work -reg

As per the requirements given by during our project discussion we have attached completed project proposal for your kind reference. I kindly request you to fix one date for using the further project details . In this meeting we will discuss about project requirements , maintained , reporting budget details also

With regards

[Mrs. A.Hema]

Contact Details

Mrs.A.HEMA  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam  
Contact NO 7598690251

ef. No: SAISRI/CW/MCA/CO/2019/03

20/03/2020

**To:**

Mrs. A.Hema  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam

Respected Madam

Thank you we are satisfied with your project that you have so far completed . It will be reformative to us if you completed the forthcoming module within the tentative date as project report are near the deadline

Thank you

Sincerely,

  
S. Gopalakrishnan



ef. No: SAISRI/CW/MCA/CO/2019/04

6/04/2020

**To:**

Mrs. A.Hema  
Assistant Professor  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam

Respected Madam

We congratulate you and your team for successful completion of the "Cable Operator Management System" software as per our requirements . we have completely satisfied With the performance of the software after the demonstrator given by your team to us on 17.04.2020

Hence as discussed we have enclosed a Cheque no: 012345 date 06.04.2020 of Indian bank for Rs. RS. 8,258/-/- favoring " The principal E.G.S. Pillay Engineering College Nagapattinam

We once again felicitate the staff members' who have taken the project work and the faculty members

Sincerely,

  
S. Gopalakrishan



9698008348



Saisai@gmail.com

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**MINUTES OF MEETING**

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**EGS PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**

**DEPARTMENT OF MCA**

**PROJECT COORDINATORS LIST**

S.NO	NAME OF THE PROJECT	PROJECT COORDINATORS	STUDENT COORDINAOTS
1	<b>Cable Operator</b>	MrsA.Hema AP/MCA	E19CAR002-GAYATHRI
	<b>Management System</b>	Mr. S.Selvaganapathy AP/MCA	E19CAR009-SASIREKA



## E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)

NAGAPATTINAM – 611 002. TAMILNADU, INDIA

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai  
(Accredited by NAAC with 'A' Grade and NBA)

Email: [principal@egspec.org](mailto:principal@egspec.org) website: [www.egspec.org](http://www.egspec.org) Ph: 04365-251112

### Department of MCA UTILIZATION CERTIFICATE

Name of the project	<b>Cable Operator Management System</b>
Name of the coordinator	Mrs. A.Hema AP/MCA
Name of the Agency	Mr. S.Selvaganapathy SRI SAI CABLE TV CABLE VISION No 4, VKV Complex, Sirangudipuliyur, Bypass Rd, Nagore, Sikkal, Tamil Nadu 611104
Type of the project	Software Project
Duration	June 2019 -April 2020
Project cost	RS. 8,258/-

Certified that I have satisfied myself that the conditions on which the grant in aid was offered have been duly fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was offered

Grant Sanctioned	Details of Expenditure incurred ites wise	Amount (Rs)
8,258/-	1.Coordinator and Technical staff Honorarium	5,000.00
	2.working expenses (reprographics services, postage, transport daily wages tea/coffed etc.,)	500
	2. Contribution to institution	15222,00
	Total	7,022
	Amount Received (Rs.)	7,022
	Balance to be Received(Rs.)	1236

Signature of the  
Head of the Department

with Seal  
**Dr. J. VANITHA**  
Head of the Department  
Department of MCA  
E.G.S. Pillay Engineering College  
Nagapattinam - 611 002.

Signature of Project Coordinator(s)

Signature of the  
Head of the Institution

with Seal  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
PRINCIPAL  
E.G.S. PILLAY ENGINEERING COLLEGE  
NAGAPATTINAM - 611 002.



Branch DMMF  
THANE, Maharashtra 40060700  
IFS Code: IDIB003T129

06042020  
D D M M Y Y Y Y

The Principal K.B.S Pillay Engineering college

Eight Thousand Two Hundred fifty

Eight Only/-

अदा करें

₹ 8,258/-

6029118258

FOR

CBS Code: 01591

*G.B.S.P.*  
AUTHORISED SIGNATORY/IES  
Please sign above



# E.G.S. PILLAY ENGINEERING COLLEGE,

Nagapattinam - 611 002.

Vr. No.:

**VOUCHER**

Dept :

Lab/WS :

Date : 06/04/20

Particulars	Rs.	Paise
Paid to Thiru Mrs. A. Hema Mrs. Selvasaran Pathy		
Towards San. W. Tank project [ Cable TV	8258	-
Operator Billing management System		
A sum of Rupees Eight thousand Two Hundred		
and fifty eight only	8258	-
Received payment		

  
Signature of Payee

  
Accounts Supdt.

  
Secretary

  
Principal