



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai)

Siruseri IT Park, Egattur, Chennai - 603 103.

Ph: 27470021, 23, 24 & 25 Fax: 27470022

GOWATR – MSAJCE R&D works

Smart Water Management System

(27.1.2021 to 31.7.2021)

Report

PRINCIPAL

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai)
Siruseri IT Park, Egattur, Chennai - 603 103.
Ph: 27470021, 23, 24 & 25 Fax: 27470022

Request letter

9/22, 3:45 PM

Mohamed Sathak A.J. College Of Engineering Mail - Gowatr - MSAJCE (Chennai) Briefing on R&D works - Project 1



Mr.S.Naveen Kumar Asst.Prof - ECE <ece.naveen@msajce-edu.in>

Gowatr - MSAJCE (Chennai) Briefing on R&D works - Project 1

1 message

Thu, Jan 28, 2021 at 6:44 PM

hariharan <hariharanj@gowatr.com>
To: ece.naveen@msajce-edu.in, vairaperumal.rvs@gmail.com, jjagansmec16@gmail.com, ece.malik@msajce-edu.in,
ece.manju@msajce-edu.in
Cc: Sathak GoWatr <sathak@gowatr.com>, Shreekant Jha <skj@gowatr.com>, vanchinathan
<vanchinathan.v@openwavecomp.in>

Hi everyone,

As outcome of meeting held in our Gowatr office on 27/01/2021, the college team had asked us to send the details on which they were briefed upon, so I am attaching the Illustrations and the respective brief explanations. Please go through the files and get back to us in a week's time (04/02/2021) with all the possible outcomes that can be worked on to make this module work in real time scenario. Please feel free to contact us or make use of the Whatsapp group if incase of any queries.

Thanks & Regards

Hariharan J

Project Engineer

Gowatr Private limited.

+91 7305090679

Email ID: hariharanj@gowatr.com

GoWatr

Gowatr Private Limited,

Office address: No-3, 3rd Cross Street, Sterling Road, Nungambakam, Chennai-600 034.

4 attachments

Motor ON-OFF case 3.pdf
14K

Motor ON-OFF case 2.pdf
13K

Motor ON-OFF case 1.pdf
10K

Gowatr - MSAJCE (Chennai) R&D works.pdf

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai)

Siruseri IT Park, Egattur, Chennai - 603 103.

Ph: 27470021, 23, 24 & 25 Fax: 27470022

Fully Automatic Water Level Controller & Indicators for Up & Down Tank with IR & Ultrasonic Sensors with Zigbee and Node MCU

Abstract:

Here is a simple, automatic water-level controller for overhead tanks that switches on/off the pump motor when water in the tank goes below/above the minimum/maximum level. The water level is sensed by two Sensors IR & Ultrasonic and transmitting data through Zigbee and Wifi Module. In this we are going to measure the water level and Monitoring Data Using LCD16×2 and Blynk Mobile Application. Basic principal of ultrasonic distance measurement is based on ECHO. When sound waves are transmitted in environment then they return back to the origin as ECHO after striking on any obstacle. So we have to only calculate its travelling time of both sounds means outgoing time and returning time to origin after striking on any obstacle. And after some calculation we can get a result that is the distance. This concept is used in our water controller project where the water motor pump is automatically turned on when water level in the tank becomes low. Measured Data Transmitted to cloud using Wifi in Receiver module (Node MCU). Blynk Mobile App used to monitor the water level and control the motor from anywhere.

Keywords: IR, Ultrasonic, Zigbee, Node MCU, etc

Components List

- Arduino Uno and Node MCU
- Ultrasonic sensor Module & IR Sensor
- Zigbee Module
- 16x2 LCD
- Flow meter
- Buzzer
- Relay 5 Volt
- 12 Volt adaptor
- Connecting wires

BENEFITS

- Integrated water management and distribution
- Lost cost
- Low power consumption
- Better communication between the subsystems

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai)
Siruseri IT Park, Egattur, Chennai - 603 103.
Ph: 27470021, 23, 24 & 25 Fax: 27470022

Gowatr R&D Project

Following list of Students & Staffs are involve as a Team and developed Water Level Controller IoT Project for Gowatr Company during the period 27.1.2021 to 31.7.2021.

Sl. No	Name of the Faculty	Designation
1	Dr. I. Manju	Head/COE
2	S.Naveen Kumar	Assistant Professor - ECE
3	Mohamed Malik	Assistant Professor - ECE
4	K.Vairaperumal	Assistant Professor - EEE
5	K.Kathirvel	Technical Assistant
6	J.Arsath Parveez	Technical Assistant
Sl. No	Name of the Students	Year/Dept
5	Rajkumar.C	IV/ECE
7	Hameed Ziyath U.R	IV/ECE

RESULTS AND DISCUSSION

Water level management system using IOT was implemented in a campus and this system works efficiently. The meter used to derive the flow measurement from pressure readings, the more accurate the pressure instrument, the more accurate the flow reading. Direct measurement with high accuracy pressure transmitters that match the level of accuracy required is recommended, and regular calibration of these transmitters is necessary to maintain the level of accuracy needed.

I. Manju
(Dr. I. Manju)
Head/COE

[Signature]
PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai) -

Siruseri IT Park, Egattur, Chennai - 603 103.

Ph: 27470021, 23, 24 & 25 Fax: 27470022

Balance sheet

STATEMENT OF ACCOUNT

INDIAN BANK
SIRUSERI IT PARK
F-13 I MAIN ROAD
SIPCOT IT PARK
Branch Code: 1750
Phone No: 27470500
IFSC:

Account No : 6769150834
Name : MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
Product : SBCHQ-GEN-PUB-SEMI URB/RUR-INR
NO 17 CASA MAJOR ROAD 2ND LANE
SULAIMAN ZACKRIA AVENUE
EGMORE CHENNAI

Statement Start Date from: 20/06/2019 to 13/10/2021
Date: 13/10/2021 Time: 11:22:47
Email:
Cleared Balance: 3,97,083.00 Uncleared Amount: 0.00
Limit: 0.00 Drawing Power: 0.00 Int. Rate in % p.a.: 2.90

Handwritten signature in blue ink.

Post Dt.	Value Dt.	Details	Chq No.	Debit	Credit	Balance
		BROUGHT FORWARD				
		NEW ACCT TYPE : 2111				
26-09-2019	26-09-2019	BY VOUCHER TFR			16000	16000.00Cr
MUMBAI F	ORT	Entrepreneurship				
		FRM 97160000121				
30-09-2019	30-09-2019	CR INT CR			8	16008.00Cr
MUMBAI F	ORT					
29-10-2019	29-10-2019	BY VOUCHER TFR			252030	268038.00Cr
MUMBAI F	ORT	SIRAJUDEEN M 1833256552				
		FRM 97161000121				
04-11-2019	04-11-2019	CLEARING CHQ DR	291328	50000		218038.00Cr
SERVICE	BRANCH (	291328 29VENKATARAMAN				
18-12-2019	18-12-2019	BY VOUCHER TFR			25000	243038.00Cr
CORE BAN	KING DAT	Transfer 67691 SATHYABAMA				
		FRM 00482965061				
19-12-2019	19-12-2019	TO CASH BY CHQ	291330	25000		218038.00Cr
		Paid to self				
27-12-2019	27-12-2019	BY VOUCHER TFR - Unnat Bhat Abiyar			50000	268038.00Cr
MUMBAI F	ORT	IRD IIT Delhi SBIN419361426516				
		FRM 97169000123				
31-12-2019	31-12-2019	CR INT CR			1436	269474.00Cr
MUMBAI F	ORT					
08-01-2020	08-01-2020	BY VOUCHER TFR			44688	314162.00Cr
MUMBAI F	ORT	WESHINE TECH PRI				
		FRM 97166000126				
09-01-2020	09-01-2020	TO CASH BY CHQ	291331	44000		270162.00Cr
		Paid to syed ismail				
		BY VOUCHER TFR			74000	344162.00Cr
14-01-2020	13-01-2020	BY VOUCHER TFR				
MUMBAI F	ORT	IITMADRAS SBIN320013096883				

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMED SATHAK AJ COLLEGE OF ENGINEERING

(Approved by All India Council for Technical Education,
New Delhi and affiliated to Anna University, Chennai)

Siruseri IT Park, Egattur, Chennai - 603 103.

Ph: 27470021, 23, 24 & 25 Fax: 27470022

DATE	BRANCH (	641				
		1750 CTS-CLG:000048-				
12-02-2021	12-02-2021	TO CASH BY CHQ	291347	44000		130230.00Cr
		Paid to SELF				
15-02-2021	15-02-2021	BY CLEARING CHQ	3035		3918	134148.00Cr
		1750 CTS-CLG:003035-				
18-02-2021	18-02-2021	BY VOUCHER TFR			27826	161974.00Cr
		/IMPS/P2A/104913221977/MB.				
		GOWATR MSAJCE RES				
18-02-2021	18-02-2021	BY VOUCHER TFR			149960	311934.00Cr
		FRM 97157017506				
18-02-2021	18-02-2021	BY VOUCHER TFR				
		CDAC SBIN121049053026				
		FRM 97163000129				
19-02-2021	19-02-2021	TO CASH BY CHQ	291348	30000		281934.00Cr
		Paid to self				
26-02-2021	26-02-2021	DR THRU CHQ	291349	83850		198084.00Cr
09-03-2021	09-03-2021	BY VOUCHER TFR			92500	290584.00Cr
		1111 T - M - KE P068210096004622				
		BROUGHT FORWARD				290584.00Cr
		FRM 97163000129				
17-03-2021	17-03-2021	TO CASH BY CHQ	291350	11300		279284.00Cr
		Paid to magesh				
17-03-2021	17-03-2021	BY CHEQUE TFR	229761	65000		214284.00Cr
		tfr				
31-03-2021	31-03-2021	CR INT CR			1341	215625.00Cr
30-06-2021	30-06-2021	CR INT CR			1559	217184.00Cr
02-07-2021	02-07-2021	BY CLEARING CHQ	3422		7738	224922.00Cr
		1750 CLG.003422/HBL - HBL				
29-07-2021	29-07-2021	DR THRU CHQ	229762	220000		4322.00Cr
03-08-2021	03-08-2021	BATCH CREDIT			220000	224922.00Cr
23-08-2021	23-08-2021	BY CASH DEPOSIT			63600	288522.00Cr
		Deposit by SELF				
		CASH DEP/SIRUSERI IT PARK				
23-08-2021	23-08-2021	DR THRU CHQ	229763	63600		224922.00Cr
25-08-2021	25-08-2021	BY VOUCHER TFR			152655	377577.00Cr
		NEFT/SBIN				
		CDAC /SBIN321237446232				
		FRM 97163000129				
01-09-2021	01-09-2021	BY VOUCHER TFR				1 377578.00Cr
		NEFT/CNRB				
		NTA NEET				
		FRM 94934000125				
04-09-2021	04-09-2021	BY VOUCHER TFR			393650	771228.00Cr
		NEFT/CNRB				
		NTA NEET				
		FRM 94967000127				
08-09-2021	08-09-2021	TO CASH BY CHQ	229764	393650		377578.00Cr
		Paid to SELF				

PRINCIPAL
 MOHAMED SATHAK AJ COLLEGE OF ENGINEERING
 Siruseri IT Park
 Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGEENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to
Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

**ATALON Product Center Private
Limited – MSAJCE R&D works**

**STUDY ON VIBRATION LEVELS OF DIESEL
ENGINE WITH AND WITHOUT TURBOCHARGER
DIESEL ENGINE**

(21.07.2020 to 22.10.2020)

Report

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
Ja. Rajiv Gandhi Road (OMR), Siruseri IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Request letter



B. Janarthanan <mech.jana@msajce-edu.in>

Research work Regarding

2 messages

giri@atalon.co <giri@atalon.co>

Fri, June 31, 2020 at 12:15 PM

To: mech.jana@msajce-edu.in <mech.jana@msajce-edu.in>

Dear Janarthanam,

"As per our discussion on the issues faced by us on "Study on Vibration levels of Diesel Engine with and without Turbocharger Diesel Engine" , we would like you to take up this work and help us to solve this problem. We are confident that you may have people who are expertise in this field.
Get into the finer details of the problem, be as clear as possible and break the problem into as many milestones as it makes sense. How long will it take to complete the work? Be sure to set out realistic expectations.

Thanking You
Kind Regards

GIRI
Atalon Product Center Pvt Ltd
New No.:9, NGO Colony
Sriperumbudur-602105
Kancheepuram District
Tamilnadu India
Ph:919840335389

mech.jana@msajce-edu.in <mech.jana@msajce-edu.in>
To: giri@atalon.co <giri@atalon.co>

Fri, June 31, 2020 at 08:00 PM

Greeting from Janarthanam B,
Thank you for the opportunity given to us to solve the following problems on "Study on Vibration levels of Diesel Engine with and without Turbocharger Diesel Engine" by your company. Our goal is to help your company so that you can come out the challenges. You are already aware of our background in this field and expertise of our faculty members as we already have MOU with your company. We are more than happy to help you in this regard. We may take approximately three months to complete the work and submit the report.

With Thanks & Regards,
Dr.B.Janarthanam,
Professor & Head Research,
MSAJCE


PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OFENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University,
Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

STUDY ON VIBRATION LEVELS OF DIESEL ENGINE WITH AND WITHOUT TURBOCHARGER DIESEL ENGINE

Abstract:

The purpose of this project was to analyze the vibration of with and without turbocharger system in a diesel engine. Vibration of diesel engine can be decreased by adding turbo charging. The driven by exhaust gas, which makes turbocharged diesel engines very efficient. Turbocharger compresses the air so that more oxygen flows into the combustion chamber. In this way, more fuel is burned and the power output of the engine increases accordingly. The turbo charger used in diesel engine very efficient. The engines can be fine-tuned by proper combustion and appropriate time & quantity of fuel injection, the problem of vibration can be rectified for some extent.

Keywords: Vibration, Diesel Engine, Turbocharger

Components List

- Diesel Engine
- Turbocharger
- Dynamometer
- Accelerometer Sensor
- NI-9234
- DEWESOFT Software
- Piezoelectric Accelerometer
- Cables and Connectors

BENEFITS

Vibration level is reduced by using the turbocharger with in a diesel engine because proper combustion process obtained. So inside of no unburnt fuel placed.


PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR) Siruseri IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OFENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

ATALON Product Center Private Limited R&D Project

Following List of Students & Staffs are involve as a team and developed Study on Vibration Levels of Diesel Engine With and Without Turbocharger Diesel Engine Project for Atlon Product Center Private Limited Company during the period 21.07.2020 to 22.10.2020

Sl. No	Name of the Faculty	Designation
1	Dr.K.S.Srinivasan	Principal
2	Dr.R.Senthilkumar	HOD/Mechanical
Sl. No	Name of the Students	Year/Dept
1	AzbaqMeeran	Final Year/Mechanical
2	Abdul Mukshith	Final Year/Mechanical

RESULTS AND DISCUSSION

In this project vibration level is measured and analyzing with and without turbocharger in diesel engine. Finally vibration level is reduced by proper air fuel mixture with turbocharger in diesel engine compared than without turbocharger. So efficiency is more and power output is high. Intensive research was performed on the reduction of Noise or vibrations of diesel the exhaust gas is used to rotate the turbine and then it is further worked with turbocharger. Now days it is good with applications of new technology regard to economic considerations and engine efficiency. Engine vibration testing and measurement techniques used and the various sensors mountings used to reduce the vibration. A vibration analysis system has been successfully developed with the help of virtual instrumentation. The chosen measurement technique was based on vibration signature analysis.


(Dr. R. Senthilkumar)
HOD / MECH


PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to
Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Cheque from ATALON

 DBS Bank Ltd. (Incorporated in Singapore with Limited Liability)	806 Anna Salai, Chennai 600 002 IFSC: DBSS0IN0811	Valid for three months from the date of issue
दिनांक Date		26 10 2020 D D M M Y Y Y Y
PAY THE PRINCIPAL, Mohamed Sathak AJ College of Engg. को या चनके आदेश पर OR ORDER		
RUPEES रुपये Thirty Three Thousand rupees only/-		
अदा करे।		₹ 33,000/-
खाता नं. A/C NO.	101916201356	CURRENT
		For ATALON PRODUCT CENTER PRIVATE LIMITED
Payable at Par at all DBS Bank Branches		
Authorized Signatories Please sign above		
000045 6006410021 005875* 29		

[Handwritten Signature]

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34 Rajin Gandhi Road (near Siruseri IT Park)
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
 (Approved by All India Council for Technical Education, New Delhi and affiliated to Anna
 University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Balance sheet

STATEMENT OF ACCOUNT

INDIAN BANK
 SIRUSERI I T PARK BRANCH
 F-13, I MAIN ROAD
 SIPCOT I T PARK
 SIRUSERI
 603103
 Branch Code: 1750 Phone No: 27470500

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING PRINCIPAL A/C
 NO 17 CASA MAJOR ROAD 2ND LANE
 SULAIMAN ZACKRIA AVENUE
 EGMORE CHENNAI 600008

Account No. : 6769150834
 Product : SBCHQ-GEN-PUB-SEMI URB/RUR-INF
 Currency : INR

Statement From 01/07/2020 to 31/03/2021 Date : 16/04/2021 Time : 13:07:49

E-mail :

Nominee name :

Cleared Balance : 2,15,625.00Cr

Unleared Amount : 0.00

Page No. : 9

Limit : 0.00

Drawing Power : 0.00

Int. Rate : 2.90 % p.a.

Post Dt	Val Dt	Details	Chq.No.	Debit	Credit	Balance
BROUGHT FORWARD						
23/09/20	23/09/20	BY VOUCHER TFR				98,913.00Cr
MUMBAI F	ORT	RAJAMANICKAM K	N267200009054457		250.00	99,163.00Cr
		FRM 97162000120				
24/09/20	24/09/20	BY VOUCHER TFR				
ATM SERV	ICE BRAN	/IMPS/P2A/026812350526/ICRTSH2020			400.00	99,563.00Cr
		FRM 97157017506				
30/09/20	30/09/20	CR INT CR				
ATM SERV	ICE BRAN				787.00	1,00,350.00Cr
21/10/20	21/10/20	BY CLEARING CHQ	003196			
SERVICE	BRANCH (	240			7,024.00	1,07,374.00Cr
		1750 CTS-CLG:003196-CLG:003196/HDFC				
05/11/20	05/11/20	BY VOUCHER TFR				
CORE BAN	KING DAT	MOBILE TRANSFER/for networking training fee			500.00	1,07,874.00Cr
		FRM 00937118191				
17/11/20	17/11/20	BY VOUCHER TFR				
MUMBAI F	ORT	NTA	P201117117255566		27,403.00	1,35,277.00Cr
		FRM 97169000124				
31/12/20	31/12/20	CR INT CR				
MUMBAI F	ORT				889.00	1,36,166.00Cr
04/01/21	04/01/21	BY CLEARING CHQ	000045			
SERVICE	BRANCH (	641			33,000.00	1,69,166.00Cr
		1750 CTS-CLG:000045-CLG:000045/DBS				
11/01/21	11/01/21	TO CASH BY CHQ	291345	33,000.00		
		Paid to SELF				
20/01/21	20/01/21	BY CLEARING CHQ	013122			
SERVICE	BRANCH (	U T I BANK LTD			33,000.00	1,69,166.00Cr
		1750 CTS-CLG:013122-CLG:013122/AXIS				
20/01/21	20/01/21	OUT-CHQ RETURN	013122	33,000.00		
SERVICE	BRANCH (	Alteration require drawer authentication				
20/01/21	20/01/21	DISHONOUR CHEQ		236.00		
SERVICE	BRANCH (
21/01/21	21/01/21	TO CASH BY CHQ	291346	5,700.00		
		Paid to magesh				
06/02/21	06/02/21	BY CLEARING CHQ	000048			
SERVICE	BRANCH (	641			44,000.00	1,30,230.00Cr
		1750 CTS-CLG:000048-CLG:000048/DBS				
CARRIED FORWARD :						

MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
 34, Rappan Road, Siruseri, IT Park
 603103, Chennai
 1,74,230.00Cr

Statement Summary Dr. Count 8 Cr. Count 105 4,62,096.80 5,71,434.80

In Case Your Account Is Operated By A Letter Of Authority/Power Of Attorney Holder. Please Check The Transaction With Extra Care.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to
Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

ATALON Product Center Private Limited – MSAJCE R&D works

**Experimental Model Analysis of a composite Beam
(28.10.2020 to 26.12.2020)**

Report

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR) Siruseri, IT Park
Chennai - 603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Request letter



B. Janarthanan <mech.jana@msajce-edu.in>

Research work Regarding

2 messages

giri@atalon.co <giri@atalon.co>

Fri, September 3, 2020 at 01:05 PM

To: mech.jana@msajce-edu.in <mech.jana@msajce-edu.in>

Dear Janarthanam,

As we are satisfied with your on going work we would like to propose a another work "Experimental Modal Analysis of a composite Beam" , we would like you to take up this work and help us to solve this problem as like the previous one. We are confident with your previous work.
Get into the finer details of the problem, be as clear as possible and break the problem into as many milestones as it makes sense. How long will it take to complete the work? Be sure to set out realistic expectations. as like you worked for thr previous work.

Thanking You
Kind Regards

GIRI
Atalon Product Center Pvt Ltd
NewNo.:9,NGO Colony
Sriperumbudur-602105
Kancheepuram District
Tamilnadu India
Ph:919840335389

mech.jana@msajce-edu.in <mech.jana@msajce-edu.in>
To: giri@atalon.co <giri@atalon.co>

Fri, September 4, 2020 at 10:30 AM

Greeting from Janarthanam B,

Thank you for giving us this opportunity again to solve the mentioned problem on "Experimental Modal Analysis of a composite Beam" by your company. we will work like ongoing work and will achieve the best result. We are more than happy to help you in this regard. We may take approximately three months to complete the work and submit the report as like the previous problem.

With Thanks & Regards,
Dr.B.Janarthanam,
Professor & Head Research,
MSAJCE

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34 Rajiv Gandhi Road (OMP) Siruseri
Chennai - 603 103



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Experimental Model Analysis of a composite Beam

Abstract:

The purpose of the car wheel rim provides a firm base on which to fit the tire. Its dimensions, shape should be suitable to adequately accommodate the particular tire required for the vehicle. In this study a tire of car wheel rim belonging to the disc wheel category is considered. Design in an important industrial activity which influences the quality of the product. The wheel rim is designed by using modelling software DEWE software. In modelling the time spent in producing the complex 3-D models and the risk involved in design and manufacturing process can be easily minimized. So the modelling of the wheel rim is made by using DEWE software. In addition to this rim is subjected to vibration analysis (modal analysis), a part of dynamic analysis is carried out its performance is observed. In this paper by observing the results of both static and model analysis obtained forged steel is suggested as best material.

Material List:

- Hemp fiber
- E glass fiber
- Epoxy resin
- Hardener

Equipment List:

- Impact Hammer
- Accelerometer
- Data Acquisition

BENEFITS:

This project also helps to bring down the vibration in the body parts hence the noise to the cabin is been reduced.

PRINCIPAL

MOHAMEDSATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OFENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

ATALON Product Center Private Limited R&D Project

Following List of Students & Staffs are involve as a team and developed Study on Experimental Model Analysis of Composite for Atlon Product Center Private Limited Company during the period 28.10.2020 to 26.12.2020

Sl. No	Name of the Faculty	Designation
1	Dr.B.Janarthanam	Head/Research
2	Mr.G.Ramesh	Associate Professor / Mechanical
Sl. No	Name of the Students	Year/Dept
1	Mohamed FarookFayas	Third Year/Mechanical
2	Mohamed SadiqBasha	Third Year/Mechanical

RESULTS AND DISCUSSION

The natural frequencies for Steel, Aluminium, Glass Fiber Reinforced Polymer, Hemp and E-Glass Reinforced with Epoxy Resin have been found. Among these materials Hemp and E-Glass Reinforced with Epoxy Resin has lower frequency. From the results obtained it has been concluded that the frequency obtained for Hemp and E-Glass Reinforced With Epoxy Resin may not be suite for the chosen application (car wheel rim) but it can be used for Car roof, Bonnet, Doors, C-Pillars, Body parts, Interiors for Automobiles. Thereby, the vehicle weight can be reduced and efficiency increases. This also helps to bring down the vibration in the body parts hence the noise to the cabin is been reduced.

B. Janarthanam
Dr. B. JANARTHANAM
(Head / Research)

G. Ramesh
Mr. G. Ramesh
(Assoc. Prof / Mech)

W. Sathak

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
36, Rajiv Gandhi Road (OMR) Siruseri
Chennai - 603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
(Approved by All India Council for Technical Education, New Delhi and affiliated to
Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Cheque from ATALON

 DBS Bank Ltd. <small>(Incorporated in Singapore with Limited Liability)</small>	806 Anna Salai, Chennai 600 002 IFSC:DBS50IN0811	Valid for three months from the date of issue
	दिनांक Date	29 12 20 20 D D M M Y Y Y Y
PAY THE PRINCIPAL, Mohamed Sathak AJ college of Engg.		को या उनके आदेश पर OR ORDER
RUPEES रुपये <u>four thousand Rupees only</u>		
अदा करें।		₹ 44,000/-
खाता सं. A/C NO.	101916201356	CURRENT
		For ATALON PRODUCT CENTER PRIVATE LIMITED
VOID		 Authorized Signatories <small>Please sign above.</small>
Payable at Par at all DBS Bank Branches		
⑈000048⑈ 600641002⑈ 005875⑈ 29		Activate

PRINCIPAL
MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING
34, Rajiv Gandhi Road (OMR), Siruseri, IT Park
Chennai-603 103.



MOHAMEDSATHAKAJCOLLEGE OF ENGINEERING
 (Approved by All India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai) Siruseri IT Park, Egattur, Chennai -603 103.

Balance sheet

STATEMENT OF ACCOUNT

INDIAN BANK
 SIRUSERI I T PARK BRANCH
 F-13, I MAIN ROAD
 SIPCOT I T PARK
 SIRUSERI
 603103
 Branch Code: 1750 Phone No: 27470500

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING PRINCIPAL A/C
 NO 17 CASA MAJOR ROAD 2ND LANE
 SULAIMAN ZACKRIA AVENUE
 EGMORE CHENNAI 600008

Account No. : 6769150834
Product : SBCHQ-GEN-PUB-SEMI URB/RUR-INF
Currency : INR

Statement From 01/07/2020 to 31/03/2021 Date : 16/04/2021 Time : 13:07:49

E-mail :

Nominee name :

Cleared Balance : 2,15,625.00Cr

Uncleared Amount : 0.00

Page No. : 9

Limit : 0.00

Drawing Power : 0.00

Int. Rate : 2.90 % p.a.

Post Dt	Val Dt	Details	Chq.No.	Debit	Credit	Balance
BROUGHT FORWARD						
23/09/20	23/09/20	BY VOUCHER TFR				98,913.00Cr
MUMBAI F	ORT	RAJAMANICKAM K	N267200009054457		250.00	99,163.00Cr
		FRM 97162000120				
24/09/20	24/09/20	BY VOUCHER TFR				
ATM SERV	ICE BRAN	/IMPS/P2A/026812350526/ICRTSH2020			400.00	99,563.00Cr
		FRM 97157017506				
30/09/20	30/09/20	CR INT CR				
ATM SERV	ICE BRAN				787.00	1,00,350.00Cr
21/10/20	21/10/20	BY CLEARING CHQ	003196			
SERVICE	BRANCH (	240			7,024.00	1,07,374.00Cr
05/11/20	05/11/20	BY VOUCHER TFR				
CORE BAN	KING DAT	1750 CTS-CLG:003196-CLG:003196/HDFC			500.00	1,07,874.00Cr
		MOBILE TRANSFER/for networking training fee				
		FRM 00937118191				
17/11/20	17/11/20	BY VOUCHER TFR				
MUMBAI F	ORT	NTA	P201117117255566		27,403.00	1,35,277.00Cr
		FRM 97168000124				
31/12/20	31/12/20	CR INT CR				
MUMBAI F	ORT				889.00	1,36,166.00Cr
04/01/21	04/01/21	BY CLEARING CHQ	000045			
SERVICE	BRANCH (	641			33,000.00	1,69,166.00Cr
		1750 CTS-CLG:000045-CLG:000045/DBS				
11/01/21	11/01/21	TO CASH BY CHQ	291345	33,000.00		1,36,166.00Cr
		Paid to SELF				
20/01/21	20/01/21	BY CLEARING CHQ	013122			
SERVICE	BRANCH (	U T I BANK LTD			33,000.00	1,69,166.00Cr
		1750 CTS-CLG:013122-CLG:013122/AXIS				
20/01/21	20/01/21	OUT-CHQ RETURN	013122	33,000.00		1,36,166.00Cr
SERVICE	BRANCH (	Alteration require drawer authentication				
20/01/21	20/01/21	DISHONOUR CHEQ		236.00		1,35,930.00Cr
SERVICE	BRANCH (
21/01/21	21/01/21	TO CASH BY CHQ	291346	5,700.00		1,30,230.00Cr
		Paid to magesh				
06/02/21	06/02/21	BY CLEARING CHQ	000048			
SERVICE	BRANCH (	641			44,000.00	1,74,230.00Cr
		1750 CTS-CLG:000048-CLG:000048/DBS				

CARRIED FORWARD :

1,74,230.00Cr

Statement Summary Dr. Count 8 Cr. Count 105

4,62,096.8034, Rajiv 5,71,434.80 (OMR), Siruseri, IT park

In Case Your Account Is Operated By A Letter Of Authority/Power Of Attorney Holder, Please Check The Transaction With Extra Care.

MOHAMED SATHAK A.J.COLLEGE OF ENGINEERING

Chennai-603 103