



Date : 04-04-2015  
To, The Principal  
Thiagarajar College of Engineering  
Madurai

PO- Engine/001

Attn: Dr. Palani Raja/ Dr. Balasubramani  
Department of Mechanical Engineering

This is the purchase order to Principal, Thiagarajar College of Engineering, Attn: Department of Mechanical Engineering , Dr. Palani Raja/ Dr. Balasubramani, regarding the development of methodology/procedure for the measurement of CG and Moment of Inertia of automotive engine and assembly as shown in annexure 1. The deliverables from the department is as follows,

Month	Activity
01	Literature survey on determination of mass moment of inertia and center of gravity of powertrain.
	Comparison of various methods for determining the mass moment of inertia and center of gravity of powertrain
02	Calculate mass moment of inertia and center of gravity for powertrains by analytical method.
03	Establish the experimental setup for determination of center of gravity and mass moment of inertia of powertrain.
	Experimental determination of mass moment of inertia and center of gravity for powertrains.

The cost of the project is 4.60 Lakhs and the payment will be as follows,  
10% with the PO and Project start  
20% at the end of analytical calculation  
30% at the end of the set-up ready  
20% at the end of the first data from the experiment and comparison  
20% at the end of the second data from the experiment and comparison

After the 2 measurements, any further measurements of the engine, EBA will provide additional 50,000 INR for each additional measurements.

EBA is responsible for the delivery of the engine to the gates of the College.

All the internal set-up of the project is handled by the college.

After the project, the engine will be taken back by EBA and transportation will be taken by EBA.

A final report with the details of the procedure and the comparison of the result will be provided by the college.

For  
Engineering & Business Analytics  
For Engineering & Business Analytics India Private Limited

Prasad.V

Signature



Forwarded to  
Dr A V A  
Mech

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION  
4<sup>th</sup> Floor, East Tower N B C C. Place, Bhisham Pitamah Marg,  
Pragati Vihar, New Delhi-110003

Ref. No. 8-172/RIFD/RPS/POLICY-1/2014-15

March 19, 2015

1055

The Drawing and Disbursing Officer  
All India Council for Technical Education  
7<sup>th</sup> Floor, Chandralok Building,  
Connaught Place, New Delhi - 110 001.

Sub: Release of Grants under Research Promotion Scheme (RPS) Scheme during the financial year 2014-15.

Sir,

This is to convey the sanction of the Council for payment of Rs.1625294/- (Rupees Sixteen Lakh TwentyFive Thousand Two Hundred NinetyFour Only) for the financial year 2014-15 under the Research Promotion Scheme (RPS) as Grant-in-aid for meeting the expenditure for implementing the Scheme in order to create & update general research capabilities, as per details given below:

1	Name of the Beneficiary Institution (University / College / Institution)	THIAGARAJAR COLLEGE OF ENGINEERING TIRUPARANKUNDRAM MADURAI, TAMIL NADU-625015.
2.	Principal Investigator's Name & Deptt./Course	Dr. VALAN ARASU A INDUSTRIAL ENGINEERING
3.	Grant-in-aid Sanctioned	Rs.1805882/- [Rs.1535000/- for non-recurring and Rs.270882/- for recurring expenditure]
4.	Amount to be Released during the year 2014-15 (100% of non-recurring and 1/3 <sup>rd</sup> of recurring expenditure of year 1 remaining recurring in year 2 and 3)	Non Recurring : Rs. 1535000/- Recurring (1 <sup>st</sup> Year): Rs.90294/- Total : Rs.1625294/-
5.	Approved Duration	3 Years (Three Years)
6.	Title of the Project	Performance Enhancement Investigation of Shell and Tube Heat exchanger for Thermal Energy Storage Applications

The sanctioned grant-in-aid is debatable to the major "601.1(a) RPS" (OBC) and is valid for payment for the financial year 2014-15.

- The grant-in-aid of the grant shall be drawn by the Drawing and Disbursing Officer (DDO), All India Council for Technical Education, New Delhi on the Grants-in-aid bill and shall be disbursed to and credited to the account of Director/Registrar/ Principal, THIAGARAJAR COLLEGE OF ENGINEERING, TIRUPARANKUNDRAM, MADURAI, TAMIL NADU-625015 through RTGS.
- The date of release of the grant by AICTE shall be taken as the date of commencement of the project. The Principal/Director/Registrar shall intimate about the receipt of the grant to AICTE. Any Expenditure incurred prior the issuance of the approval letter is not allowed to be adjusted in the grant and if the University/Institution do not take the project work within 6 months of the receipt of the grant, approval shall ipso facto lapse.

Contd...2/-

19:35

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**THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625015**

ECE/SJT/DLRL/2015 /1113

02.02.2015

To

The Chairman and Correspondent  
TCE, Madurai 625015

Respected Sir,

Sub: Research Associate & Assistants – DLRL Project - Permission – Reg  
Ref: No.DLRL/SJT/001(R)/2014 D0348 dated 21 Jan 2015

ECE Department has undertaken a project titled "Development and Implementation of Signal Processing Algorithm for Real Time RADAR Pulse Parameters Measurement" from Defense Electronics Research Laboratory (DLRL) Hyderabad at the cost of Rs.9,77,500/-, with Dr.S.J Thiruvengadam as Principal Investigator. The duration of this project is 10 Months. In this project, Rs. 4,90,000 has been allotted for Research Associate and project associates. Now, we would like to appoint one Research Associate at the salary of Rs.12500/month for the period of 10 months and 4 Research Assistants from the students of final year B.E ECE, at the salary of Rs. 4000/month for the period of 4 Months, at the total cost of Rs.1,89,000/-. We request your approval to appoint One Research Associate and 4 Research Assistants for this project

Thanking You

Yours faithfully

*V. Subramanian*  
PRINCIPAL

*yes*  
*M*  
*3/2*  
Encl: DLRL Contract Letter,



105A

**ALL INDIA COUNCIL FOR TECHNICAL EDUCATION**  
4<sup>th</sup> Floor, East Tower, N.B.C.C. Place, Bhisham Pitamah Marg,  
Pragati Vihar, New Delhi-110003

Ref. No.: 8-170/RIFD/RPS/POLICY-1/2014-15

March 19, 2015

**The Drawing and Disbursing Officer**  
All India Council for Technical Education  
7<sup>th</sup> Floor, Chandralok Building,  
Connaught Place, New Delhi - 110 001

Sub: Release of Grants under Research Promotion Scheme (RPS) Scheme during the financial year 2014-15.

Sir

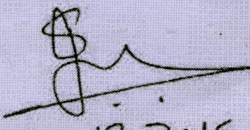
This is to convey the sanction of the Council for payment of **Rs.550588/-** (Rupees Five Lakh Fifty Thousand Five Hundred Eighty Eight Only) for the financial year 2014-15 under the Research Promotion Scheme (RPS) as Grant-in-aid for meeting the expenditure for implementing the Scheme in order to create & update general research capabilities, as per details given below:

1.	Name of the Beneficiary Institution (University / College / Institution)	THIAGARAJAR COLLEGE OF ENGINEERING TIRUPARANKUNDRAM, MADURAI, TAMIL NADU-625015.
2.	Principal Investigator's Name & Deptt./Course	Dr. PADMAVATHI S COMPUTER SCIENCE & ENGINEERING
3.	Grant-in-aid Sanctioned	Rs.611765/- [Rs.520000/- for non-recurring and Rs.91765/- for recurring expenditure]
4.	Amount to be Released during the year 2014-15, (100% of non-recurring and 1/3 <sup>rd</sup> of recurring expenditure of year 1 remaining recurring in year 2 and 3)	Non Recurring : Rs. 520000/- Recurring (1 <sup>st</sup> Year): Rs.30588/- Total : Rs.550588/-
5.	Approved Duration	3 Years (Three Years)
6.	Title of the Project	An Agent Based Cloud Revenue Model for Women Empowerment in Rural Areas

- The sanctioned grant-in-aid is debatable to the major "601.1(a) RPS" (OBC) and is valid for payment for the financial year 2014-15.
- The grant-in-aid of the grant shall be drawn by the Drawing and Disbursing Officer (DDO), All India Council for Technical Education, New Delhi on the Grants-in-aid bill and shall be disbursed to and credited to the account of **Director/Registrar/ Principal, THIAGARAJAR COLLEGE OF ENGINEERING, TIRUPARANKUNDRAM, MADURAI, Tamil Nadu-625015** through RTGS.
- The date of release of the grant by AICTE shall be taken as the date of commencement of the project. The **Principal/Director/Registrar** shall intimate about the receipt of the grant to AICTE. Any Expenditure incurred prior the issuance of the approval letter is not allowed to be adjusted in the grant and if the University/Institution do not take the project work within 6 months of the receipt of the grant, approval shall ipso facto lapse.

Contd...2/-

amt 5.5 lakhs  
sanctioned on  
September  
2015  
only.

  
19.3.15



- 2
4. Each project sanctioned by AICTE is assigned a specific Ref. No. which is on pre-page. All correspondence address to AICTE regarding the project must quote this number along with year of sanction of the project, otherwise the correspondence may not be entertained.
  5. The accounts of the grantee will be open for test check by the Council or Comptroller & Audited General of India or by any Officer designated by them.
  6. The institute/University shall not charge any overheads on this project and will provide all the administrative support for completion of the project.
  7. The grantee shall utilize grants on only approved items of expenditure (list enclosed). However in case of the grantee wishes to recast the project, approval of Council must be obtained for the revised item of expenditure and they will maintain proper accounts of the expenditure as per the norms/procedures of AICTE/Government of India.
  8. The assets acquired wholly or substantially out of all India Council for Technical Education's grant shall not be disposed or encumbered or utilize the purpose other than those for which the Grant was given without proper sanction of the all India Council for Technical Education.
  9. The grantee shall maintain an audited record of assets acquired wholly or substantially out of the grant-in-aid and a register or assets shall be maintained by the Institute in the prescribed form i.e. GFR-19.
  10. The interest on the sanctioned Grant-in-Aid will be treated as a part of the grant and shall be adjusted against recurring expenditure of future installments, if any.
  11. The Annual Progress Report in the prescribed format along with Statement of Expenditure and Audited Utilization Certificate shall be submitted to AICTE not later than one month after completion of each financial year.
  12. Project Completion Report (PCR) in the prescribed format along with the Audited Statement of Expenditure indicating expenditure incurred in the total duration of the project in the prescribed format, utilization in the format and GFR-19 shall be submitted to the Council.
  13. The Utilization Certificate (UC) supported by Audited Statement of Expenditure to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the All India Council for Technical Education as early as possible after completion of the project. It should contain the head-wise break up of expenditure made from the grant-in-aid provided by the Council.
  14. The grantee shall follow the terms and conditions of Research Promotion Scheme (RPS) as laid down by the council from time to time.

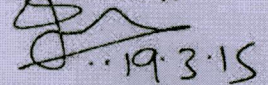
Contd...3/-

19-3-15



15. The Grantee shall fully implement to the official language policy of Union Government and comply with the official language Act, 1963 and official language (use of official purposes of the Union Rules, 1976 etc.)
16. The funds to the extent are available under the scheme.
17. The sanction issues in exercise of the powers delegated to the Council. It is also certified that grant-in-aid is being released in conformity with the rules and Principles of the scheme.
18. The Council does not permit engagement of any staff for the RPS project.
19. It should be ensured that no RPS project in favour of the same P.I. has been sanctioned during the last 03 years before utilizing this amount and the matter be brought to the notice of this Council immediately.

Yours sincerely,

 19.3.15

(Shashikant P. Borkar)  
Advisor (RIFD)

Note: The prescribed formats and Terms & Conditions are available in the application brochure.

Copy forwarded for information and necessary action to:

1. THE PRINCIPAL  
THIAGARAJAR COLLEGE OF  
ENGINEERING,  
TIRUPARANKUNDRAM, MADURAI,  
TAMIL NADU-625015.
2. Dr. PADMAVATHI S  
DEPT. OF COMPUTER SCIENCE AND  
ENGINEERING,  
THIAGARAJAR COLLEGE OF  
ENGINEERING,  
TIRUPARANKUNDRAM, MADURAI,  
TAMIL NADU-625015.
3. Office of Director General of Audit  
GENERAL REVENUES,  
AGCR BUILDING  
I. P. STATE, NEW DELHI-110 002.
4. Guard File





## DEPARTMENT OF ELECTRICAL ENGINEERING

INDIAN INSTITUTE OF SCIENCE, BANGALORE - 560 012, INDIA

Dr. K.R. Ramakrishnan

Professor

E-Mail : krr@ee.iisc.ernet.in

### To Whomsoever May It Concern

The following items are being delivered to **Thiagarajar College of Engineering (TCE), Madurai** by the **Indian Institute of Science, Bengaluru** under the DST (Department of Science and Technology, Govt. of India) titled **"Video Analytics Development System"**.

These items are meant for academic use only and will be returned to the Indian Institute of Science at the end of the project.

### List of items being delivered to TCE, Madurai, Tamilnadu

1. PC+Monitor  
Ref ID: EE/S-419(2/2),  
EE/KRR/2014/S-500,  
26.9.14 (Desktop)
2. Silvan 'Dhruv' cameras (3 no.s)  
Ref IDs:
  - a. EE/S-402(7)
  - b. EE/S-402(8)
  - c. EE/S-402(9)
3. Axis P-5512 PTZ camera (1 no.)  
Ref ID: EE/S-380

192-168.1.169  
140  
17

*K.R. Ramakrishnan*

Dr K.R.Ramakrishnan

05-11-2014

Received

*B. Yoganee*  
07/11/14

(*B. YOGAMEENA*)

Asso. Prof  
Dept of ECE  
TCE, Madurai

*[Signature]*  
Dept. of ECE  
Thiagarajar College of Engg  
MADURAI-15.

Dr. (Mrs.) S. Raju  
Professor and Head  
Dept. of Electronics & Communication  
Thiagarajar College of Engineering  
Madurai - 625 015



# Form GFR 19-A

## Form of Utilization Certificate

Project: m-Eyecare : Development of Mobile Tracking System for Eye Care

Period: 04.06.2014 to 31.03.2016

Sl. No.	Letter No. and Date	Amount	Amount certified that out of Rs. 64,40,425.00 of Grants - in - aid Received during the years 2014-2015 in favor of <b>Thiagarajar college of Engineering</b> under this Ministry/Department Letter No. 13(17)/2012 - IG Dt: 21.05.2014, Fund Transfer Dt: 04.06.2014, 31.03.2015 Interest amount received a sum of Rs. 59,575.00 and Nil on account of unspent balance of the year, a sum of Rs.89,78,376.00 lakhs has been utilized for the purpose of for which it was sanctioned and that the balance of Rs. remaining unutilized at the end of the year will be carried forward towards the grants-in-aid payable during the next year 2015-2016
1.	13(17)/2012 - IG Dt: 21.05.2014 Fund Transfer Dt: 04.06.2014	Rs. 26,30,000.00	
2.	Interest Received	Rs. 59,575.00	
3.	Fund Transfer Dt: 31.03.2015	Rs. 37,50,850.00	


2. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/ are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised.

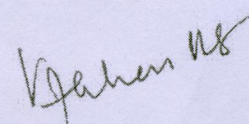
1. Vouchers
2. Cash Book
3. Bank Book
4. Ledgers

  
Finance Officer



  
Chief Investigator

**Dr. S. MERCY SHALINIE**  
Head of the Department  
Department of Computer Science & Engineering  
Thiagarajar College of Engineering

  
Competent Authority

**Principal**  
**THIAGARAJAR COLLEGE OF ENGINEERING**  
**MADURAI-15.**



No. 22/12/2014-NEB (C)  
Government of India  
Ministry of Science & Technology,  
Department of Science and Technology  
(National S&T Entrepreneurship Development Board)

Technology Bhavan,  
New Mehrauli Road,  
New Delhi- 110 016

Dated: 26.02.2014

**ORDER**

**Sub: Establishment of a Technology Business Incubator (TBI) at Thiagarajar College of Engineering, Madurai.**

Approval of the President is hereby accorded for the establishment of a **Technology Business Incubator (TBI) at Thiagarajar College of Engineering, Madurai** at a total cost of **Rs.432.09 lakhs (Rupees Four Crores Thirty Two Lakhs and Nine Thousand Only)** with DST's contribution of an amount of **Rs.193.77 lakhs (Rupees One Crore Ninety Three Lakhs and Seventy Seven Thousand Only).**

2. The Technology Business Incubator (TBI) at Thiagarajar College of Engineering, Madurai will identify and promote new technologies in the areas of RF and Antennas and all allied wireless systems, Printed circuit board manufacturing, Power sources and Batteries and Material based manufacturing for Wireless communication systems.

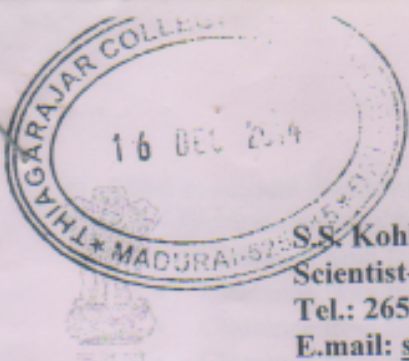
3. The break-up of the total approved cost for the TBI project is as under:-

Sl.No	Particulars	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> year	4 <sup>th</sup> Year	5 <sup>th</sup> year	Total
<b>I. Capital</b>							
1	New Land and Furnished Building (to be provided by Host Institution)	13.32	14.65	16.12	17.73	19.50	81.32
2	Office Equipments (Computing, Communication, Training Facilities, etc.)	25.00	15.00	15.00	5.00	5.00	65.00
<b>Total - I</b>		<b>38.32</b>	<b>29.65</b>	<b>31.12</b>	<b>22.73</b>	<b>24.50</b>	<b>146.32</b>
<b>II . Recurring Cost</b>							
1	Man Power Cost	15.12	18.12	19.93	22.00	24.10	99.27
2	Travel	1.00	1.00	1.00	1.00	1.00	5.00
3	Utility and Maintenance	0.00	1.00	1.00	1.00	1.00	4.00
4	Marketing Promotion and Advertisement	1.50	1.50	1.50	1.50	1.50	7.50
5	Networking and Training	2.00	2.00	2.00	2.00	2.00	10.00
8	Miscellaneous and Contingencies	1.00	0.50	0.50	0.50	0.50	3.00
<b>Total - II</b>		<b>20.62</b>	<b>24.12</b>	<b>25.93</b>	<b>28.00</b>	<b>30.10</b>	<b>128.77</b>
<b>Total - (I + II)</b>		<b>58.94</b>	<b>53.77</b>	<b>57.05</b>	<b>50.73</b>	<b>54.60</b>	<b>275.09</b>
Total HI's Contribution		13.32	14.65	16.12	17.73	19.50	81.32
Revenue Generation from TBI activities		2.0	15.00	32.00	50.00	58.00	157.00
<b>GRAND TOTAL (DST Support Sought)</b>		<b>45.62</b>	<b>39.12</b>	<b>40.93</b>	<b>33.00</b>	<b>35.10</b>	<b>193.77</b>

4. The required funds for the project would be raised through the following means.

*[Signature]*





**S.S. Kohli**  
Scientist-G/ Adviser  
Tel.: 26590499  
E.mail: [sskohli@nic.in](mailto:sskohli@nic.in)

*Dr. S. Balaji*  
*Chem. Dept.*  
*ITC*

भारत सरकार  
विज्ञान और प्रौद्योगिकी मंत्रालय  
विज्ञान और प्रौद्योगिकी विभाग  
टेक्नोलॉजी भवन, नया महरौली मार्ग  
नई दिल्ली-110 016

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD  
NEW DELHI-110 016

D.O. No. SB/CT/075/2013

Dated 05-12-2014

Subject: Research project entitled "Development of nano composite absorbers for Suppression of Excess EMF radiation." submitted to this department for consideration for funding under Cell Tower Radiation Programme.

Dear Dr. Abhaikumar,

Kindly refer to your captioned project proposal considered by the Expert Committee recently. I am pleased to inform you that the project has been favorably recommended by the Expert Committee. The committee suggested to have an expert from the material science group, at the total cost of Rs.49.90 Lakhs for the duration of 24 Months, subject to your fulfilling the eligibility conditions. The budget recommended is as follows:

SL.No.	Sanction Head	Total
A.	<b>Non-recurring (Capital Items)</b>	
	Equipments (Handheld Network Analyzer, Horn Antenna QH 800, RF power source)	Rs. 35,00,000
B.	<b>Recurring Items (General)</b>	
I	Man Power (JRF-2)	Rs.13,20,000
II	Consumables	Rs.1,00,000
III	Travel	Rs.60,000
IV	Contingency	Rs.10,000
	Sub Total	<b>Rs.49,90,000</b>
	Over Heads as per norms	

2. You are now required to furnish the following documents/information in one lot:

- Latest quotations for permanent equipment included in your project proposal, exclusively required for the project. These quotations should include insurance and freight (CIF), if any etc. The validity of the quotations should be such as to enable placement of firm orders immediately on receipt of sanction letter from DST.
- List of consumable with cost, (as given in project proposal) in a table format, indicating name of costly consumables (enclose quotation for costly items) with quantity and cost.
- Kindly note that salaries of research staff to be recruited in the project is fixed as per DST norms. In order to facilitate the same please provide certificate from the head of the institute certifying the salaries to be paid to your project staff.
- A list of facilities available at your institute for execution of the project. This was included in your project proposal but we would like to be reassured that these facilities would be available to you during the entire duration of the project. Additional facilities acquired after submission of the proposal, if any, may please be indicated clearly.
- In case you are aware of a possible change in your position in the institute (for example sabbatical leave, shifting to a new institution, superannuation etc.) in the near future, you are requested to furnish such information.
- Kindly forward the Certificate from the head of the Institute (on letter head) and letter from the investigator as per the SERB format available at [www.serb.gov.in](http://www.serb.gov.in), if you have not already done so.

Contd....2....



Subject **Aakash Equipment Fund**  
From janhvi <janhvi@cse.iitb.ac.in>  
To MRS. JANHVI MORE  
<janhvi@cse.iitb.ac.in>  
Date 29-01-2015 1:27 am

**TCE Mail**

---

Dear Sir / Madam,

Aakash equipment fund of Rs 1,00,000/- has been transferred to your account on 28.1.15. Please check and acknowledge the receipt.

Regards

Jaishela Gaitonde

Sr Project Manager(Finance)

MHRD Projects - T10kT and Aakash

Dept of Computer Science & Engineering

T 10kT Lab, Ground Floor, Kanwal Rekhi Bldg.

IIT Bombay

Mumbai 400 076

Phone: 022-2576-4964 (O)





# THIAGARAJAR COLLEGE OF ENGINEERING

(A Govt. Aided Autonomous Institution Affiliated to Anna University)

MADRURAI - 625 015



## GRANT UTILISATION CERTIFICATE

This is to certify that a grant of Rs.100,000/- (Rupees One Lakh only) from IIT Bombay was received by our organization via electronic money transfer to our Institute's Bank Account (as per bank account details provided by us to IIT Bombay.)

The details of purchases are as per the Annexure II attached with this certificate.

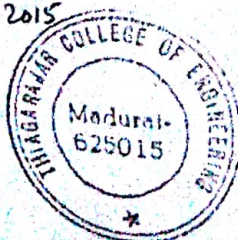
We certify that the grant of Rs 100,000 (Rupees One Lakh only) has been fully utilized for the purchase of equipment for effective utilization of Aakash tablets, for R & D work and for T10kT workshops under the National Mission on Education through ICT (MHRD, Govt. of India)

*P. Karthikeyan*  
Aakash Coordinator

Signature with Institute Seal  
Date: 10.03.2015

*Dr. S. S. S. S.*  
Finance Officer  
Signature with Institute Seal  
Date: 10.03.15

*V. Arun Kumar*  
Institute Head  
Signature with Institute Seal  
Date: 10.3.2015



*M. Vijayan*  
Chartered Accountant  
Signature  
Date:



**M. VIJAYAN, B.Com., F.C.A.,**  
Chartered Accountant  
Membership No : 200/26972  
'Thiruvavul', Natham Road,  
Thirupalai, Madurai - 625 014.