

**KERALA STATE
SCIENCE AND TECHNOLOGY MUSEUM AND
PRIYADARSINI PLANETARIUM**

Vikas bhavan.P.O, Thiruvananthapuram-695 033

Phone : 0471 – 2306024 Fax- 0471-2304286

www.kstmuseum.com

(A government of Kerala Undertaking)



Tender for

**Construction of ferrocement water tank
over the existing steel framework for Biodiversity park
at Vallakkadavu, Thiruvananthapuram**

Name and address of the Tenderer:

.....

.....

Last date and time of submission

of tender	:	3 pm, 22/01/2018
Date and time of opening of tender	:	4 pm, 22/01/2018
Probable amount of contract	:	Rs. 1,13,050/-
Time of completion	:	30 days
Earnest Money Deposit	:	Rs. 2,826/-
Cost of Tender Documents	:	Rs. 226 + 18% VAT

INDEX

Notice Inviting Tender

General Information about the contractor.

Form of tender

Unconditional acceptance of tender conditions

Instructions and general conditions of Contract

Technical specifications

Articles of agreement agreement

Schedule of works

Drawings

**KERALA SCIENCE AND TECHNOLOGY MUSEUM
AND
PRIYADARSINI PLANETARIUM**

Vikas bhavan.P.O, Thiruvananthapuram-695 033
Phone : 0471 – 2306024,2306976,2304286 Fax- 0471-2304286
(A Government of Kerala Undertaking)

Tender no: B/4059/17(2)

03/01/2018

Notice inviting tenders

Sealed tenders are invited from contractors having sufficient experience in executing similar works for the “Construction of Ferro cement water tank at the Bio Diversity Park at Vallakkadavu, Thiruvananthapuram”. Tender forms and other details can be had from the office of the undersigned during working hours till 1 pm on 22/01/2018 on payment of Rs. 226/- plus 18% GST. Filled up tenders, accompanied with an EMD of Rs. 2,826/- in the form of DD drawn in favour of the undersigned, payable at Trivandrum will be accepted till 3 pm on 22/01/2018 and will be opened at 4 pm on the same day. Tender forms can also be downloaded from web site www.kstmuseum.com, in which case the cost of tender form should be submitted along with the tender as separate demand draft, drawn in favour of the undersigned.

Director
Kerala State Science & Technology Museum
Vikas Bhavan PO
Thiruvananthapuram 33
Ph: 2306024/25

General Information of contractor

- 1) Name of the firm :
- 2) Address :

- 3) Contact person :
Phone
Fax
Email
Cell Phone
- 4) Place and year of incorporation of the firm :
- 5) Registration No. (If any) :
- 6) Constitution of the firm
(Pvt.Ltd., Public, Proprietary),
:
- 7) Name & qualification of the Chief
Executive of the firm
:
- 8) Details of type of contract license held (If any)
(Copy to be enclosed)
- 9) Permanent Account No. (PAN) :
- 10) GST Registration No:
:

FORM OF TENDER

From

.....
.....
.....
.....
.....

To

DIRECTOR
Kerala State Science and
Technology Museum
Vikasbhavan P.O.
Thiruvananthapuram.

Sir,

Having examined the specifications and tender schedule, schedule of work and having acquired the requisite information relating to the tender in all respects, I/We

.....
.....

hereby offer to execute the work as specified in this tender at the rates mentioned in the schedule of work attached in accordance with the specifications, conditions of the tender, the articles of the agreements and such other materials as may be prescribed from time to time.

Should this tender be accepted, I/We.....

.....
hereby agree to abide by and fulfill the terms and provisions of the said conditions of contract annexed hereto so far as they may be applicable or in default thereof to forfeit the E.M.D. and pay the Kerala State Science and Technology Museum, the amount mentioned in the said conditions.

Director

Contractor

I/we.....
 have deposited a sum Rs. 2,826/- (Rupees Two thousand eight hundred and twenty six only) as EMD in the form of crossed demand draft in favour of the Director, Kerala State Science and Technology Museum, payable at Thiruvananthapuram. Should I/We fail to execute the agreement when called upon to do so, or to commence work as provided in the conditions, I/we do hereby agree that the Museum shall without prejudice to any right or remedy be at liberty to forfeit the EMD absolutely and also recover from me /us the entire loss that may be caused to the museum by retender arrangement of the work otherwise, under the provisions of Revenue Recovery Act or otherwise.

I/we agree that arbitration shall not be a means of settlement of any dispute or claim arising out of this contract.

Signature of the tenderer

Full Name and address:

Details of EMD:

DD No. dt..... for Rs. drawn on

UNCONDITIONAL ACCEPTANCE OF TENDER CONDITIONS

NAME OF WORK: Construction of Ferro cement water tank at the Bio Diversity Park at Vallakkadavu, Thiruvananthapuram.

I/We of M/s. _____, bidder for the above noted work do hereby unconditionally accept all the terms and conditions mentioned in the tender documents.

Further, we have noted that after unconditionally accepting the tender conditions in its entirety, it is not permissible to put any remarks/conditions in the tender submission envelope. In case this provision of the tender is found violated at any time after opening of the tender, we agree that the tender is liable to be rejected and KSSTM shall, without prejudice to any other right or remedy, be at liberty to forfeit the full said Earnest money absolutely.

Signature of the Bidder:

Name of the tenderer:

Director

Contractor

1. Instructions and General Conditions of contract

Kerala State Science and Technology Museum is an Autonomous Organisation, registered under Charitable Societies Act, established by the Govt. of Kerala for popularizing Science education to various sections of the society. This Museum is governed by a Governing Body chaired by the Hon'ble Minister for Education.

Kerala State Bio Diversity Board, a Govt. of Kerala establishment, has entrusted KSSTM with setting up of Bio Diversity park at their premises at vallakkadavu as a part of their activities, and the works as per this tender is an integral part of this project.

1. Submission of tender

Tender shall be submitted in sealed cover, superscribed as "Tender for Construction of Ferro cement water tank at the Bio Diversity Park at Vallakkadavu, Thiruvananthapuram. The cover shall contain the following:

- (a) Complete set of Tender documents as issued by the Museum together with addenda/corrigenda if any, filled in and signed by the tenderer, with address stamps/seals wherever stipulated. The rate quoted shall be both in words and figures. In case of any mismatch between the two, the amount indicated in words will be considered correct.
- (b) Earnest money deposit of 2,826/- (Rupees Two thousand eight hundred and twenty six only) in the form of crossed demand draft drawn in favour of the Director, Kerala State Science and Technology Museum, Thiruvananthapuram payable at Thiruvananthapuram.

The offer shall be valid for a period of 30 days from the date of opening of the tender. Tender not accompanied by the E.M.D. shall be rejected as non- responsive.

2. Acceptance / Rejection of tenders

The tenders submitted after the stipulated time of submission shall be rejected. The tenders not submitted in the prescribed forms, not duly signed at the places marked, incomplete/torn off tender forms etc. shall be rejected. The Director, Kerala State Science and Technology Museum, Thiruvananthapuram reserves the right to accept or reject any

of the tenders without assigning any reasons thereof. Becoming the lowest offered party does not entitle a tender to award the work. Apart from cost, quality of work, durability, track record of the contractor, guarantee offered etc. will also be considered for awarding the supply.

3. Place of work, scope and time of completion.

The scope of the work covered by this tender is a specialized job of Construction of Ferro cement water tank. The tenderer is advised to visit the site before quoting. Time of completion, quality & precision in measurements are the essences of this tender. **The works covered by this tender shall be completed in all respects within 30 days from the date of agreement for the work.** Work will be treated as complete only upon approval and certification of the Engineer – in charge.

4. Agreement for the work.

Within 5 working days of receipt of the letter of award, the awarded contractor has to execute an agreement with the Museum for the due fulfillment of the contract in the prescribed format, with a security deposit of 5% of the contract in the form of Demand Draft, in favour of the Director, KSSTM, payable at Trivandrum. The EMD submitted by all the tenderers will be released upon executing the agreement by the successful tenderer. The security deposit vide this clause will be released after successful completion of the guarantee period vide clause (5) below, and on certification of the Engineer.

5. Guarantee period.

The works covered by this tender shall be guaranteed for a minimum period of one year from the date of handing over of the works. Any defects observed during this period due to the usage of inferior quality materials of bad workmanship shall be rectified/replaced as per opinion of the client/consultant within a reasonable period of 7 days, failing which the Museum shall have the right to rectify/replace the same at the risk and cost of the contractor.

6. Withdrawals of the offer after it is accepted or failure to arrange the work within a specified time or according to specifications will entail cancellation of the order and work being made at the offers expenses from elsewhere, any loss incurred thereby being

payable by the defaulting party. In such an event the Museum reserve the right to remove the defaulter's name from the list of Museum's vendors list and to report to the Government for blacklisting the tenderer in Government works permanently or for a specified number of years.

7. The rates quoted shall be firm for a period of 30 days from the date of opening of the tender. Rates offered shall be inclusive of all taxes & duties in force at the time of tendering. The quantities mentioned in the schedule of works are indicative, and no additional claims for deviation in quantities will be entertained during the tenure of the work, or after the completion. The Museum shall have the rights to increase/decrease/delete item/items of work mentioned in the schedule of works, according to the site requirements. Payments will be made on actual measurements as per agreed rates. No representation for enhancement of price will be considered on any ground.

8. The work is a specialized job, and firms having requisite experience only need participate in the tender.

9. The tenderers are requested to visit the site and collect required data from the Engineer in charge before submitting the tender.

10. The contractor shall take statutory insurance policy for the work in the joint name of the Contractor and the Museum before commencement of the work, and the policy shall be submitted to the Museum in original.

12.. Electric supply and water required for the work shall be made available by the Museum free of charges at the work site.

13. Contractor will be permitted to work during night hours also, if necessary, in the presence of Technical supervisors of the contractor, on prior permission of the Museum.

14. It is the primary responsibility of the contractor to ensure the working premises and the surrounding areas neat and tidy. The contractor shall have his own arrangements for cleaning the areas at regular intervals, failing which the Museum shall make arrangements at the risk & cost of the Contractor.

15. All the debris generated from the work shall be cleared from the campus of and disposed off at a convenient places identified by the contractor, including all charges of

loading, conveyance and unloading. The Museum shall not take any responsibilities in this regard.

16. The contractor shall not cause any hindrance for the movement of other agencies engaged in the project. It is the responsibility of the contractor to place warning signs and temporary barricades with prior approval of the museum

17. The contractor shall submit a detailed programme of execution of the work before commencement of the work for approval.

18. Any attempt on the part of tenderers or their agents to influence the officers concerned into their favour by personal canvassing will disqualify the tender.

19. All disputes arising out of or in any way connected with this tender shall be deemed to have arisen in Thiruvananthapuram and only civil courts in Thiruvananthapuram shall have jurisdiction to determine the same..

21. **Payment terms**

1. 95 % of the value of the works will be made upon completion of the work and certification of the Engineer – in – charge of the work.
2. Balance 5% will be released on expiry of the defect liability period, along with the security deposit made for the work as per clause (5) above.

Special conditions for payment, if any, printed on the tender sheets by the tenderer or attached with the tender will not be applicable to the tender unless they are expressly accepted in writing by the Director, KSSTM.

2. TECHNICAL SPECIFICATIONS

2.1 GUIDELINES

1 SCOPE

The scope of the work covers construction of a ferrocement tank of capacity 12,000 litres in 3 chambers over an existing steel frame work & platform.

2 SCOPE OF CONTRACT

2.1 The scope of work under this contract covers supply of all materials required for construction of a ferro cement water tank, formation of the tank with required reinforcement, watering,, curing etc. complete, water proofing inside of the tank, provision of inlet/outlet and inter connection arrangements, providing MS cover to the tank and finally painting the tank with cement paint etc. The contractor shall supply all equipment, material, accessories and labour required for the specified works and to carry out the erection as specified and shown on the drawing and schedule of material.

2.2 Safety, good workmanship and quality are the prime requisites of the work covered under this contract. All the equipments, material and the work carried out shall meet the standards for proper functioning of the systems, and shall be in correct lines, levels etc.

2.3 The scope of contract shall also cover all taxes and duties, and no further claim will be accepted in this connection.

3.0 MATERIAL

3.1 The equipments and material shall meet Indian Standard specifications and requirements, as applicable to ferro cement works It is the responsibility of the contractor to meet the statutory provision and standards.

4.0 INSPECTION & TESTING

4.1 The Consultants/Clients have the right to inspect the materials and the work or at site at any stage and reject the material/work that is found substandard or does not meet the requirements of the specification and codes.

4.2 The contractor shall provide at his cost at site and elsewhere instruments and appliances for testing and equipments and installation at various stages of

manufacturing/installation. These instruments shall be got tested and calibrated for their accuracy and performance from the approved institutions.

- 4.3 The inspection and testing carried out by the Consultants/Clients/Third party does not relieve the contractor of their responsibility of carrying out routine inspection during each stage of procurement, manufacture and installation and also meeting the intents and requirements of the specification and statutory requirements.

5.0 **REFERENCE DRAWINGS**

The drawings issued with the tender are basic schematic drawings and are parts of the tender documents. Contractor shall preserve one set of this drawing in good condition incorporating all modifications carried out from time to time during the erection period at the site and shall return them to the Consultants/Clients after completion of the work.

6.0 **MEASUREMENTS AND PAYMENTS**

The mode of measurement and payment shall be strictly as per Indian Standards. Measurements shall be taken jointly with the contractor, and no claims for corrections in measurements will be entertained once the joint measurements are recorded.

7.0 **HANDING OVER**

- 7.1 The installation shall be handed over after a satisfactory completion of the work.
7.2 The final acceptance shall be effective only after KSSTM has issued taking over letter to the contractor, after proper inspections.

8.0 **PERFORMANCE GUARANTEE**

All materials and fabrication works shall be guaranteed for a period of 12 months from the date of handing over of the work.

9. SPECIAL CONDITIONS

- 9.1 The work is being carried out inside a water body, and the access to the location is very limited. The tenderer is advised to visit the site and collect data from the engineers concerned before participating in the tender.
9.2 The water tank is being constructed over an elevated steel frame work and platform specially fabricated for installation of the tank. The contractor has to make his own arrangements for temporary scaffolding structure for facilitating the work, if needed,

at his own expenses and to remove the same from the site after completion of the work.

10. DETAILED TECHNICAL SPECIFICATIONS

1. The water tank shall be in 3 chambers as shown in the drawing. The thickness of the wall shall be 50 mm or higher.
2. The floor & walls of the tank shall be reinforced with 8 mm tor steel @ 15 cms c/c in both directions, 40 mm x 40 mm MS weld mesh of medium gauge tied to the reinforcement layer, and good quality chicken mesh in both faces. Additional surface reinforcement shall be provided at the locations of the inlet/outlet/wash out adapters.
3. Provisions for inlet, outlet, washout and interconnection arrangements shall be provided at appropriate levels as per site instructions. Suitable adapters shall be provided for the above arrangements by the contractor at no extra cost.
4. Good quality M.sand in proper grading and baby metal alone shall be used for the work, after getting approval from the Engineer in charge. The application shall be with strict water control to avoid chances of shrinkage.
5. Proper curing shall be given to the tank with gunny bags immediately after the initial setting time.
6. Both faces of the tank shall be plastered with cement mortar 1:3, 9 mm thick with neat flushing coat. In addition, the inside of the tank shall be treated for water proofing with approved quality chemicals.
7. The tank cover shall be with rust free MS structure, made out of 40 mm X 6 mm MS flat and 16 gauge MS sheet as per directions. The tank cover shall be openable and shall be provided with manholes for maintenance purposes.
8. The external surfaces shall be painted with cement paint of approved colour and quality, two coats. The MS cover for the tank shall be painted neatly with enamel paint of approved colour and quality, over a coat of zinc chromate metal primer.

Director
Kerala state Science and technology Museum
Trivandrum

ARTICLES OF AGREEMENT

ARRICLES OF AGREEMENT made on this the day of ----- 2018 at **Thiruvananthapuram**, between Kerala State Science and Technology Museum, having their Registered Office at Vikas Bhavan PO, Thiruvananthapuram, hereinafter called the **“MUSEUM”** (which expression shall, unless it be repugnant to the context or meaning thereof include its successors and assigns) of **THE FIRST PART** and hereinafter called **the “Contractor”** (which expression shall, unless it be repugnant to the context or meaning thereof, mean and include its successors) of **THE SECOND PART.**

AND WHEREAS The **MUSEUM** is desirous of carrying out the works for “Construction of Ferro cement water tank at the Bio Diversity Park at Vallakkadavu, Thiruvananthapuram (hereinafter called the **“Work”**) and invited open tenders for the same vide tender no. B/4059/17(2) dt. 03/01/2018

AND WHEREAS the Contractor has submitted tender and offered to carry out the work and the **MUSEUM** has agreed to award the work to the Contractor on certain terms and conditions which the parties are desirous of recording.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. The **MUSEUM** and the **Contractor** agree that The Letter of Intent/Work order issued by the MUSEUM vide order no. and all correspondence between MUSEUM and the contractor prior to issue of LOI/Work order along with the Notice Inviting Tender, Instructions to tenderers Tender Form, General Conditions of Contract, Special Conditions, Technical Specifications, Unit Specifications Detailed Specifications, scheduled/Bill of Quantities and Contract Drawings, etc, defined in greater details as **“Contract Documents”** in the General Conditions shall form an integral part of this Agreement.

2. For the consideration hereinafter mentioned the Contractor shall, upon and subject to the **“Contract Documents”** annexed hereto carry out the said Work.

3. In consideration of the Contractor carrying out the Work, The **MUSEUM** shall pay to the Contractor a sum of Rs. (Rupees), hereinafter referred to as the **“Contract Sum”** or such other sums as shall be payable

Director

Contractor

hereunder on prorata basis at the times and in the manner specified herein and the General Conditions annexed hereto.

4. The said Contract Documents hereto shall be read and construed as forming part of this Agreement and the parties hereto shall respectively abide by and submit themselves to the Contract Documents. The Contractor has no right to assign this agreement without the consent of **MUSEUM**.

5. The Contract shall be an **ITEM/UNIT RATE CONTRACT**. The Contract Sum as stated herein is subject to addition & deduction. The Contract Sum payable to the Contractor shall be determined by applying the executed quantities of items and rates agreed upon to the Item/Unit Rates in the Schedule/Bills of Quantities attached hereto or such other rates as may be agreed to in writing as variation to the Contract to the as-built quantities measured upon completion of the Work.

6. The contractor has deposited a sum of Rs./- (Rupees. only) by way of Demand draft for the due fulfillment of the contract as per conditions of tender

7. The Contractor has scrutinized all Drawings, Schedule/Bill of Quantities, Specifications and Conditions of Contract and has visited the site to co-relate the drawings and design intent to the site conditions and Contractor confirms that his prices included in the Schedule/Bill of Quantities have been determined on the basis of such scrutiny of the documents and site conditions.

8. The quantities of pay items shall be measured net after execution of the work, or as pre measurement as in the case may be, in accordance with the units of measurements indicated against each item irrespective of any local custom or practice to the contrary. The Contractor has allowed for all wastage and additional costs, if any, in his prices.

9. The detailed drawings and item descriptions in the Schedule/Bill of Quantities are not exhaustive. They are indicative of the general design intent. The Contractor's price is inclusive of all components and finishes required to achieve the design intent of each individual item and for co-ordination of details for inter-related items.

10. The contractor shall prepare the design & drawings as per site requirements and in accordance with the technical specifications and get the approval of the

Museum/Technical consultant before supply of items & installation works. It is mutually agreed that quality& time are the essences of this contract, and the work shall be commenced and completed in all respect, adhering to the specifications and time frame.

10. Upon successful & satisfactory completion of the guarantee period as per the conditions of the tender, and upon approval of the Technical consultant/Engineers of the Museum,, the security deposited by the contractor vide clause 6 above shall be returned to the contractor, after adjusting liabilities, if any.

11. All disputes arising out of or in any way connected within this agreement shall be deemed to have arisen in Thiruvananthapuram and only courts in Thiruvananthapuram shall have jurisdiction to determine the same.

IN WITNESS WHEREOF the **MUSEUM** has set and subscribed its hands and seal and the Contractor has caused its Common Seal to be affixed hereunto on the Day and Year herein above written.

SIGNED SEALED AND DELIVERED BY Sri., Director, the duly constituted attorney for the MUSEUM

Signature of the **MUSEUM** :

In the presence of witness :

Signature of Witness:

SIGNED SEALED AND DELIVERED BY Sri., the duly constituted attorney for the Contractor

Signature of the **Contractor**:

In the presence of witness:

Signature of Witness:

Schedule of work:

Name of work: Construction of Ferro cement water tank at the Bio Diversity Park at Vallakkadavu, Thiruvananthapuram.

Item No	Item	Unit	Quantity	rate	Amount
1	Constructing and handing over 3-chamber ferro cement tank of capacity 12,000 litres over the existing MS framework and platform as per technical specifications and drawings	Nos	01		

Undertaking:

I/we hereby agree to execute the above works at the quoted rates, in accordance with the terms and conditions of the tender. Should I/we fail to execute the agreement, or execute the work after the work is awarded, I/we have no objection in KSSTM forfeiting the EMD remitted for the work by me/us.

Place:

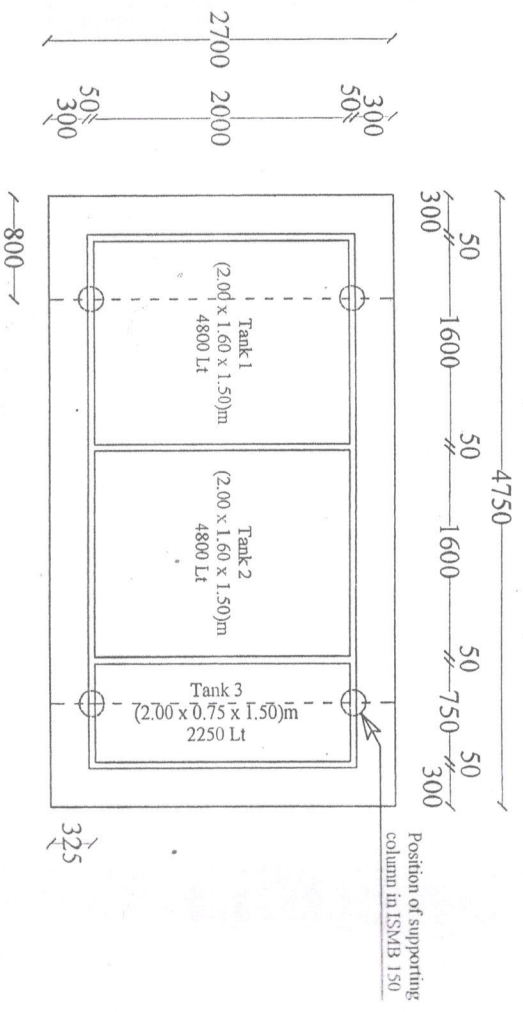
Signature:

Date:

Name & address of the tenderer:

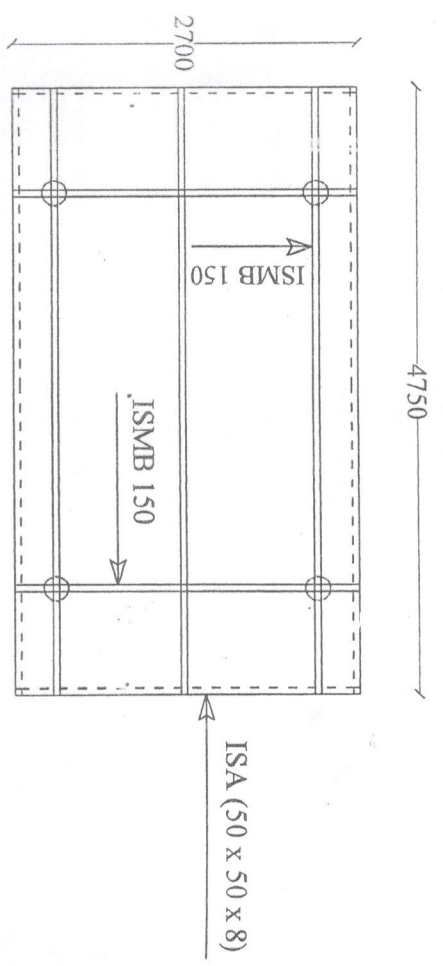
Director

Contractor



Key Plan - Deck Level - Position of ferrocement water tank

Wall thickness of ferrocement water tank is assumed as 5cm for measurement purpose.
 Total height of ferrocement water tank is 165 cm including a freeboard of 15cm



Deck Level - Details of Main beams and edge beams

All dimensions in mm

Construction of a water tank at Biodiversity Park at Vallakadavu

Sheet No :	3/4
Date :	22/12/2017