



Ramakrishna Mission Ashrama

(A branch Centre of Ramakrishna Mission, Belur Math, Howrah, W.B.)

Hatamuniguda, Rayagada, Odisha 765020

Phone : +91 94380 15552 * Email : hatamuniguda@rkmm.org

(e-TENDER)

ID No.: RKMAH/e-Tender/2019-20/002

Date: 04/09/2019

Sealed Tenders are invited for the following work at Ramakrishna Mission Ashrama, Hatamuniguda, Rayagada, Odisha - 765020.

<ul style="list-style-type: none">• WORK DESCRIPTION	<ul style="list-style-type: none">• <u>Design:</u><ul style="list-style-type: none">• Design Objectives are: (a) Use of Fuel-economic Dual-Fuel Boiler for steam-based cooking, (b) Kitchen Waste Management, and (c) Water Recycling, leading to Zero Waste, for about 800 boarders in the Ashram Hostel Kitchen.• Deliverables will be: Architectural, Civil, Electrical, Instrumentation & Mechanical design assumptions, calculations, GA drawing, Equipment drawing.• <u>Implementation:</u> The implementation of this Project shall be based on the design inputs and the Specifications given in Section J below.• <u>Quality Assurance:</u> Design and implementation must be vetted by a full-time professor from the relevant field from any of the IITs or NITs.
<ul style="list-style-type: none">• TENDER ISSUING AUTHORITY	Secretary, Ramakrishna Mission Ashrama, Hatamuniguda, Rayagada, Odisha 765 020.
<ul style="list-style-type: none">• DEFINITION	Steam-based data-driven sustainable kitchen for 800 boarders under "RKM Kitchen Modernization" project.
<ul style="list-style-type: none">• ELIGIBILITY CRITERIA	<ul style="list-style-type: none">• The Bidder must be an Indian Company registered under Companies Act 1956/2013.• The party must have GST Registration.• At least one of the Promoters/Directors (i) must possess an Engineering Degree

	<p>from any of the IITs, NITs, or any other Engineering colleges, (ii) must have at least 15 years of industrial experience (supported by a self-declaration with details of their experience and corresponding referees' names & contact nos. for verification), (iii) must have their name as a Promoter/Director of the Company in the Company's MoA & AoA to be submitted along with the Bid, and this person must be involved in this project with his role clearly defined in the Bid.</p>
<ul style="list-style-type: none"> • OTHER TERMS & CONDITIONS 	<ul style="list-style-type: none"> • GST, if applicable should be shown separately in the Price Quotation. • All payments will be made through Cheque/Draft/ Bank Transfer only. • TDS shall be deducted as per existing law.
<ul style="list-style-type: none"> • DEADLINE FOR BID SUBMISSION 	25/09/2019
<ul style="list-style-type: none"> • TENDER OPENING AND PRESENTATION DATE 	27/09/2019
<ul style="list-style-type: none"> • SPECIFICATIONS <p>a) <u>Kitchen Renovation & Reengineering</u>: This aspect of the assignment should consider renovating the existing kitchen building, which needs major repairs / additions.</p> <p>Further, the kitchen needs to be modernized based on the following considerations:</p> <ul style="list-style-type: none"> • Efficiency (optimum use of fuel) & Cooking Speed • Maintainability • Convenience • Safety <p>The kitchen layout should identify the placement of appliances, the sinks, the cabinets, the worktops, the windows and doors, kitchen furniture, and pathways for movement of food & people.</p> <p>Kitchen layout will have defined 5 general areas in the kitchen:</p> <ul style="list-style-type: none"> • Pantry area: food storage spaces, canned goods, refrigerators • Storage area: appliances, utensils, cookware • Sink area: cleaning area • Preparation area: ideally a large counter space to work on • Cooking area: stoves and ovens. <p>b) Steam ovens shall be used for cooking. Water shall be heated in boilers (powered by traditional fuels: firewood, diesel, gas) to produce steam, which will carry the energy to cooking ovens. b) <u>Kitchen Waste Management</u>: Disposed materials</p>	

that are organic in nature, such as the kitchen waste, shall be recycled using biological composting and digestion processes to decompose the organic matter. The resulting organic material shall then be recycled as compost for agricultural or landscaping purposes in the Ashrama.

c) Kitchen Wastewater Treatment: In order to address the need to sustainably manage the natural resource of fresh water, which is scarce in this region, and to protect the hydrosphere in general, this part of the assignment will design and implement an integrated system of treating and recycling greywater that is generated from the hostel kitchen. Sources of greywater include, sinks, showers, baths, washing machines and dish washers.

Greywater from kitchen will be treated for reuse; especially for production of steam for cooking purpose. Besides, it will be used for toilet flushing and/or irrigation purpose.

- Mechanical Systems (sand filtration, lava filter systems and systems based on UV radiation).

Team composition:

Team must have at least one resource with the following background with requisite experiences:

Team Member Type	Experience
Post Graduate in Civil/Architecture	1 Year
Graduate in Mechanical engineering	5 Years
Graduate in electrical engineering	5 years

SCORING: Since this is a single part bid, scoring has been associated with the bid.

Technical Part: Total score 40

Methodology – 20

Bidder must write methodology in 1000 words on how they design and implement the project

Presentation – 20

Bidder must give a presentation on their capability and strength and how do they wish to deliver this project.

Financial Part: Full score 60

Lowest Bidder will be given 100% and others will be given on prorated basis.

Winning Score: Highest total of technical and financial score.

Submission: (For eligibility evaluation)			
<ul style="list-style-type: none"> • AOA and MOA along with certificate of incorporation • GST registration certificate • PAN card • Complete bio-data with educational background and experiences of the promoter/director mentioning the contact particular of referee(s) for verifications. 			
<ul style="list-style-type: none"> • Team : Self attested bio-data of each team member mentioning role to be played in this project. 			
<ul style="list-style-type: none"> • Methodology: in 1000 words. 			
<ul style="list-style-type: none"> • Presentation: Power Point Presentation in maximum 10 Slides. 			
<ul style="list-style-type: none"> • Financial: 			
Item		Value (excluding GST)	Value (including GST)
a) Kitchen Renovation & Reengineering			
<u>Renovation of Existing Kitchen Building</u>			
- Dismantling exiting post-cooking sheds and re-building as per the new kitchen design and building a temporary kitchen as an interim measure - cost of manpower & consumables			
- Dismantling of the existing kitchen (approx. 6 meters x 4 meters) wherein burners are currently placed - cost of manpower			
- Breaking the connecting wall between the existing kitchen and the existing post-cooking shed while providing for passage of steam pipes from the new boiler room to the new kitchen - cost of manpower & consumables			
- Material cost for constructing the boiler room (5 meters x 6			

<p>meters, 6 meters high), including electrical appliances, wirings, 40 W LEDs etc.</p>					
<p>- Manpower cost for building the new kitchen (oven room) with electrical wirings and other associated cost</p>					
<p>- Civil work for Constructing new oven room - cost of building material</p>					
<p>- Water supply arrangement on the roof of the new boiler room with water treatment plant and plumbing - Material cost</p>					
<p>- Installation of water treatment plant and plumbing work and electrical job - manpower cost</p>					
<p>- 1 HP water pump to feed water to overhead water tank using solar energy and a second 1 HP pump to draw water from the water tank to the water treatment plant - cost of material & manpower</p>					
<p><u>Renovation of Existing Kitchen Building Sub-Total</u></p>					
	No. of Manpower Resource	Total Man-days	Rate (Rupees / Man-day)		
<u>Design & Material Selection</u>					
Project Head					
Design review and support from an Architecture					
Design Engineer Civil					
Design Engineer Electrical					
AUTO Cad Engineer					

Procurement Specialist					
Travel and fooding					
Printout and other stationery					
<u>Design & Material Selection Sub-Total</u>	Quantity	UOM	Unit Price		
Water Tank	1	No			
Multi-fuel Boiler	1	No			
Steam Collector	1	No			
Steam Pipe	30,000	Foot			
Boiler Exhaust System	1	No			
Water Pipe	2,000	Foot			
Steam Ovens	12	No			
Fork lifts	12	No			
Automatic Heavy-duty Roti Makers	2	No			
<u>Raw Material Cleaning Arrangement</u>					
- Supply of material (Rotary type with flush)	1	No			
- Installation raw material cleaning arrangement					
<u>Raw Material Cleaning Arrangement Sub-Total</u>					
<u>Utensils Cleaning Arrangement</u>					
	Quantity	UOM	Unit Price		
Commercial Dishwasher - supply & installation	1	No			
<u>Utensils Cleaning Arrangement Sub-Total</u>					
Cold storage for vegetables	1	No			
Modern arrangement for rice/cereal storage					
Other Kitchen Appliances like cutters, peelers, grinders, blenders, etc.					
Installation of water tank, boiler & its accessories like steam collector, steam pipes, boiler exhaust system, water pipes, steam ovens, roti makers, etc.					
Sub-Total (Kitchen					

Renovation & Reengineering)					
b) Kitchen Waste Management System	No. of Manpower Resource	Total Man-days	Rate (Rupees / Man-day)		
Design & Material Selection - cost of domain expert					
Vermi beds					
<u>Sheds</u>					
Wooden ballies					
Bamboos					
Bamboo mats for covering the roof					
Coir rope					
Binding wire					
Labour charges					
Sheds Sub-Total					
Motorized carts for transportation					
<u>Machineries</u>					
Shovels, spades, crowbars, iron baskets, dung fork, buckets, bamboo baskets, trowel, wire mesh sieves	Quantity	UOM	Unit Price		
Plumbing and fitting tools					
Power operated shredder					
Sieving machine with 3 wire mesh sieves - power operated					
Weighing scale					
Weighing machine (platform type)					
Bag closer					
Empty barrels					
Culture trays					
Wheel barrows - 2 Nos.					
Machineries Sub-Total					
Installation and contingency					
Sub-Total (Kitchen Waste Management System)					
c) Kitchen Wastewater Treatment					

<u>Design & Material Selection</u>	No. of Manpower Resource	Total Man-days	Rate (Rupees / Man-day)		
Water & Waste water treatment expert					
AUTO Cad Engineer					
Travel and fooding					
Design & Material Selection Sub-Total					
Construction of Wetlands					
Installation/construction of pumps, sumps, flow splitter structures, weirs, inlet structures and outlet structures - cost of materials					
Construction of Wetlands Sub-Total	Quantity	UOM	Unit Price		
Water Pipe	1,000	Foot			
Installation					
Sub-Total (Kitchen Wastewater Treatment)					
GRAND TOTAL					

Swami Gitatmananda
Secretary