

## Bid Evaluation Report

1. Name of Procuring Agency: Mehran University of Engineering & Technology, Jamshoro.  
2. Tender Reference No: DD(Proc.)/MUET/JAM/-128, Dated: 30-06-2016  
3. Tender Description/Name of work/item: PROCUREMENT OF LAB EQUIPMENT FOR VARIOUS LABORATORIES OF DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT AT MUET JAMSHORO.

4. Method of Procurement: Domestic/ Local.

5. Tender Published: MUET Web Site on 01-07-2016 & SPPRA Web Site on 13-07-2016.  
Print & Electronic Media (SPPRA ID No.29526, Dated: 13-07-2016).

6. Total Bid documents Sold: 03 Nos.

7. Total Bids Received: 02 Nos.

8. Technical Bid Opening date: (if applicable) Not Applicable (Provide details in separate form)

9. No. of Bid technically qualified (if applicable): Nil.

10. Bid(s) Rejected: Nil.

11. Financial Bid Opening date: 10-08-2016.


12. Bid Evaluation Report:

13. Estimated Cost:-Rs.


S No	Name of Firm or Bidder	Cost offered by the Bidder	Ranking in terms of cost	Comparison with Estimated cost	Reasons for acceptance/rejection	Remarks
0	1	2	3	4	5	6
1.	M/s Rastek Technologies, Karachi					
2.	M/s Paktech Instruments Company, Karachi					

Comparative Statement Attached

Signatures of the Members of the Committee.

  
**Prof. Dr. Hussain Bux Marri**  
Chairman,  
Industrial Engineering &  
Management Department,  
MUET, Jamshoro

  
**Nadeem Soomro**  
Deputy Director (Procurement)  
MUET, Jamshoro

  
**Engr. Qamar-ul-Hassan** Memo  
Consultant to Vice Chancellor  
Engineering Affairs,  
University of Sindh

Name of Work:

**PROCUREMENT OF LAB EQUIPMENT FOR VARIOUS LABORATORIES OF  
DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT AT MUET,  
JAMSHORO.**

**MINUTES OF MEETING:**

A meeting for opening of tender for the work "Procurement of Laboratory Equipment required for various laboratories of Industrial Engineering & Management Department at MUET, Jamshoro" was held on 10-08-2016 at 11:00 a.m. the Office of the Deputy Director (Procurement), MUET, Jamshoro. The following members of tender Opening Committee were present.

Member/ Convener

1. Prof. Dr. Hussain Bux Marri,  
Chairman, Department of  
Industrial Engineering & Management,  
MUET, Jamshoro.

Member

2. Engr. Qamar-ul-Hassan Memon,  
Consultant to Vice Chancellor on  
Engineering Affairs,  
University of Sindh, Jamshoro.

Member

3. Mr. Nadeem Soomro  
Deputy Director (Procurement),  
MUET, Jamshoro.

The Deputy Director (Procurement) briefed the Committee members that the sealed percentage/ Item Rate Tenders were invited as per SPP Rules 2010 for the said work vide NIT No. DD(Proc.)/MUET/JAM/1128. dated 30-06-2016. He further briefed that the provision has been provided in the head of Equipment in the HEC approved scheme for procurement of lab equipment for various laboratories of the Industrial Engineering & Management Department, MUET, Jamshoro. The Date of purchasing tender starting from 11-07-2016 to 09-08-2016 as per NIT and Submission Date was 10-08-2016 upto 10:00 a.m. whereas, Opening Date of the tender was 10-08-2016 @ 11:00 a.m. The Deputy Director (Procurement) further briefed that three (03) bidders had purchased the Bidding Documents and out of which (02) bidders submitted the same in-time. Then all the Suppliers / Firms were called in the office of the Deputy Director (Procurement), so that bidding documents can be opened in their presence under Rule-41 of SPP Rules 2010. Following Suppliers / Firms took part in the bidding process as under:

1. M/s Paktach Instruments Company. Karachi
2. M/s Rastek Technologies, Karachi
3. M/s National Scientific Corporation, Lahore

**Copy of Attendance Sheet attached.**


The Committee started the proceedings of opening of tender in-front of aforementioned bidders and read aloud the names of each bidder one by one by opening their respective bids and also read aloud bid amount and other details as depicted under:




S#.	Name of Firm or Bidder	Contractor quoted bid amount in Rs.	Mathematically Corrected bid amount in Rs.	% above/ Below Estimated Cost
1.	M/s Rastek Technologies, Karachi.	Comparative Statement Attached		
2.	M/s Paktech Instruments Company, Karachi			

In the light of above, the Committee resolved that final item-wise recommendations be got prepared by the Departmental Experts / Professors of Industrial Engineering & Management Department and be approved from the competent authority and accordingly, agreed in Toto for the equipment to be selected by the Departmental Committee.

The meeting ended with the vote of thanks to all members.

  
**Prof. Dr. Hussain Bux Marri**  
 Chairman,  
 Industrial Engineering & Management  
 Department, MUET, Jamshoro

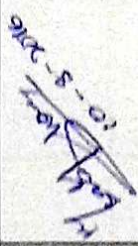
  
**Nadeem Soomro**  
 Deputy Director (Procurement)  
 MUET, Jamshoro

  
**Engr. Qamar-ul-Hassan Memon**  
 Consultant to Vice Chancellor on  
 Engineering Affairs,  
 University of Sindh



**MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY,**  
**JAMSHORO**

**ATTENDANCE OF THE SUPPLIERS FOR OPENING OF THE TENDER INVITED FOR  
PROCUREMENT OF LABORATORY EQUIPMENT FOR VARIOUS LABORATORIES  
OF DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT MUET,  
JAMSHORO, OPENED ON 10-08-2016 AT 11:00 HRS IN THE OFFICE OF THE  
DEPUTY DIRECTOR (PROCUREMENT), MUET, JAMSHORO.**

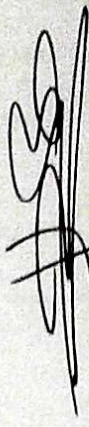
S.#	Name of Firm	Signature	Remarks
01.	M/s Paktech Instruments Company, Karachi		
02.	M/s National Scientific Corporation, Lahore	Absent	
03.	M/s Rastek Technologies, Karachi	M. Azeem	



**Mr. Nadeem Soomro,**  
Deputy Director (Procurement),  
MUET, Jamshoro



**Engr. Qamar-ul-Hassan Memon,**  
Consultant to Vice Chancellor  
On Engineering Affairs,  
University of Sindh



**Prof. Dr. Hussain Bux Mari,**  
Chairman,  
Department of Industrial  
Engineering & Management,  
MUET, Jamshoro



**COMPARATIVE STATEMENT FOR PROCUREMENT OF LAB EQUIPMENT REQUIRED FOR VARIOUS LABORATORIES OF DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT, MUET, JAMSHORO.**

COMPARATIVE STATEMENT FOR PROCUREMENT OF INDUSTRIAL ENGINEERING & SERVICE, MUET, JAMSHORO														
Item Code	Description / Specification of Items	Qty	M/s Rastek Technologies, Karachi						M/s Paktech Instruments Company, Karachi					
			Unit Rate	Exch. Rate	Cost			Unit Rate	Exch. Rate	Cost				
					P-I	P-II	Total			P-I	P-II	Total		
1- TIME AND MOTION STUDY LABORATORY														
IN/TMSL-01	<b>DECIMAL DISPLAY STOPWATCH</b> Enter the distance, record the time and this stopwatch displays the speed in mph or kph. 100 memories of split and lap times. This Sper Scientific Stopwatch will count up or down to 20 hours in 1/100 seconds resolution and offers many advanced features. The large 3 line display simultaneously shows total elapsed time, split time, current lap time, lap counter and indicates low battery. This Stopwatch also has a unique LCD contrast adjustment and touch tone selectable buttons. The sonically welded case insures excellent water resistance.	40	\$ 76.00	104.50	317,680.00	-	317,680.00	--	N/Q	--	--	--	--	
IN/TMSL-02	<b>SCIENTIFIC MICROCHRONOMETER</b> Microchronometer, TR 112 OS - 4-figure LCD time readout for minutes and seconds - programmable for up to 99 mins, 59 secs - 30 second audible alarm when timed period has expired - countdown function - memory function - case incorporates combined bench stand / pocket clip with magnet - with instructions in 3 languages - supplied with 1 x 1.5V AAA battery Dimensions (WxDxH) 66 x 56 x 18mm Weight 45g	40	\$ 16.00	104.50	66,880.00	-	66,880.00	--	N/Q	--	--	--	--	
IN/TMSL-03	<b>DIGITAL EXPOSURE METER</b> Oversized LCD display shows all data and functions clearly and easily, even at full arm's length. Large analog " (Gas-Gauge Style) Scale for easy fractional measurements. Standard PC terminal for sync cord flash activation. Compact, ultra-thin design. Polaris is less than 1-inch thick and weighs just 4 oz. Unique multi-flash feature makes it simple to calculate how many times the flash must be fired to achieve a desired f/stop. Accurate to 1/10 f-stop.	8	\$ 768.00	104.50	642,048.00	-	642,048.00	--	N/Q	--	--	--	--	
IN/TMSL-04	<b>MOTOR CAMERA RECORDER</b> Resolution 1920*1080 Shooting angle 140 Imaging sensor 5 million Record time 25H Video format MOV	10	\$ 47.00	104.50	49,115.00	-	49,115.00	--	N/Q	--	--	--	--	
IN/TMSL-05	<b>VISTA EXPLORER, INCH LIGHTWEIGHT TRIPOD WITH TRIPOD BAG</b> <ul style="list-style-type: none"><li>• 3 way pan head with bubble level</li><li>• Only 3 pounds</li><li>• Quick release leg locks</li><li>• Geared Center Post</li><li>• Bag included</li></ul>	20	\$ 31.00	104.50	64,790.00	-	64,790.00	--	N/Q	--	--	--	--	
2- COMPUTER AIDED ENGINEERING LABORATORY														
IN/CAEL-01	<b>KONICA MINOLTA 3D LASER SCANNER OR EQUIVALENT</b> VIVID 9i provides high precision, making it well suited for the dimensional measurement demands of industrial processes such as dies, casting, forging, sheet metal and molded plastics part production.	1	N/Q	--	--	--	--	--	N/Q	--	--	--	--	
IN/CAEL-02	<b>3D PRINTER</b> Fabricates parts up to 21.6 x 14.8 x 15.3 inches in size or 4,526 cubic cm in volume Prints layers up to a maximum resolution of 80 microns Fabricates parts using 1.75-mm PLA filament (sold separately) 7" color touchscreen controls the fully automated printing, copying, scanning, and faxing of parts without the use of an external computer Automatic calibration and bed leveling ensures precise prints and scans	1	\$ 2,899.00 OR \$ 13,950.00	104.50	302,945.50 1,457,775.00	-	302,945.50 1,457,775.00	--	N/Q	--	--	--	--	
3- COMPUTER INTEGRATED MANUFACTURING (CIM) AND INDUSTRIAL MANUFACTURING LABORATORY														
IN/CIML-01	<b>LASER RAPID PROTOTYPING MACHINE</b> Currently in the fields of automotive, home appliances, power tools, medical, machining, precision casting, aerospace, crafts, children's toys and other industries. It has played an important role in the following areas: Product samples, design review, performance testing and assembly experiments. Users could make a prototype of the design assessment, simulated performance testing & assembly test, then assess the possibility of production, and pass the improvement information to the designer for modification and optimization.	2	N/Q	--	--	--	--	--	N/Q	--	--	--	--	



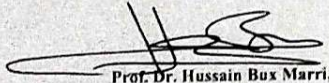
Item Code	Description / Specification of Items	Qty	Unit Rate			Total		Unit Rate	Each Rate	Unit			Total
			Unit Rate	Each Rate	P.1	P.2				P.1	P.2	Total	
IN/CIML-02	<b>CNC MACHINE 1400 CNC LATHE</b> The 1400 CNC Lathe has the ability to revert to manual control quickly and efficiently, eliminating the need to write a CNC program for short runs. Its advanced CNC capabilities transform complex turning applications into simple designs that can be programmed and executed accurately many times over on production runs.	1	\$ 40,392.00 OR \$ 41,319.00	104.50	4,230,964.00		4,230,964.00	\$ 15,000.00	104.50	1,561,500.00	81,073.50	1,642,573.50	
IN/CIML-03	<b>EDM Drill machine</b> High Speed Small Hole EDM Drilling Machine 1. Processing all kind of hard material 2. Penetrate directly from bevel and chamfer	1	N/Q					\$ 31,000.00 Opt \$ 3,452.00 OR \$ 35,900.00 Opt \$ 3,452.00	104.50	3,331,500.00 166,677.50	166,677.50	3,500,127.50	
IN/CIML-04	<b>MINI MILL DRILL MACHINE X2</b> Constructed in cast iron for vibration free running. Ground and hardened slide ways with GIB strip adjustment. Milling head and column tilts to 45° Left & Right. 350W variable speed motor with a 2 speed gearbox. Fine down feed control for accurate tool height setting. Precision ground table with Tee slots for material clamping. 13mm drilling, 16mm end milling and 30mm face milling capacity.	2	\$ 1,036.00	104.50	216,524.00		216,524.00	N/Q					
IN/CIML-05	<b>INDUSTRIAL CONTROL TRAINER</b> The Industrial Control Technology unit (ICT3) is a representation of an industrial assembly system that allows the study of control methods used in product assembly and inspection in a manufacturing process. Various industrial sensors and the methods, in which they can be used, are studied. The Sensors and actuators are used to sort components, assemble them and test for correct assembly followed by acceptance or rejection. The unit can be controlled from a PLC using the 24v dc I/O interface.	4	GBP 4,950.00	135.82	2,689,236.00		2,689,236.00	\$ 18,860.00	104.50	7,383,480.00	394,174.00	8,277,654.00	
IN/CIML-06	<b>BATCH PROCESS TRAINER</b> The Batch Process Trainer (BPT) is a sequential process typical of many found in industry. Electroplating, Printed circuit board etching, Paint stripping and degreasing. The BPT consists of a transporter that traverses left and right over 5 separate process tanks. A lift bar, attached to the transporter is used to rise and lower flight bars in and out of the process tanks. The control panel located at the front of the unit provides colour coded 4 mm shrouded sockets for all the input and output signals together with a visualization of the input signals by LED indicators. The control panel also includes a joystick and 'fast' button (for manual controls). The BPT can be controlled from either PC or PLC or connected through the front panel. Fault switches are included for teaching diagnostics.	4	GBP 3,870.00	135.82	2,102,493.60		2,102,493.60	N/Q					
IN/CIML-07	<b>SINGLE CONVEYOR UNIT</b> The Single conveyor unit consists of a belt conveyor that has sensors situated along its length. Two different sized metal boxes which are provided with the unit are placed in turn at the start of the conveyor and as the box travels along the conveyor it enters an area consisting of two sensors that determine the length of the box. At the end of the conveyor is a sorting area with a sensor and linear solenoid. In the sorting area, the sensor detects the box and through the program controlling the single conveyor, the box is either accepted and allowed to continue or rejected by the solenoid.	6	GBP 1,100.00	135.82	896,412.00		896,412.00	Included in Item IN/CIML-05					
IN/CIML-08	<b>5 Axis Robot Arm</b> The SARA is a complete self-contained five axis vertically articulated robot arm system designed for bench top automation. The hand terminates in a mounting plate for grippers, and comes standard with electric gripper fitted. The SARA uses light weight, high efficiency digital motors driving through steel reinforced polyurethane timing belts and the compact micro-stepping drives providing both speed and precise control. The SARA includes the simple to use controller with fast CPU and DSP processors an incremental optical encoders and an intuitive teach pad.	4	GBP 9,600.00	135.82	5,215,488.00		5,215,488.00	N/Q					
IN/CIML-09	<b>Flexible Manufacturing System (Complete set)</b> All key sequences of fully automated flexible manufacturing system can be covered. Buffer for unprocessed parts, separation, CNC machine loading with robot, CNC machining processes, work piece removal from machine with robot, finished parts buffer, SCADA option, DNC option.	1	N/Q	N/Q				N/Q					
4	<b>HUMAN FACTORS / ERGONOMICS LABORATORY (NEW / PROPOSED)</b>												
IN/HFEL-01	<b>Electronic Push/Pull Dynamometer</b> Superior load cell force measurement taking 30 readings per second, rugged aluminum housing, separate peak memory for push and pull results, auto-shut off, pushbutton calibration, and an LCD display in pounds, kilograms or newtons. Set includes: three padded attachments and a single handle for push tests, a hook and double handle set for pulling and lifting tests, a 9-volt battery, an AC adapter, plastic carrying case, and a user's manual. Measures 3-3/4" L x 2-1/2" W x 1-1/2" H (9 x 6 x 4 cm). Weighs less than a pound. Latex free.	8	\$ 3,700.00	104.50	3,093,200.00		3,093,200.00	N/Q					




M/s Rastek Technologies, Karachi												M/s Paktech Instruments Company, Karachi					
Item Code	Description / Specification of items	Qty	Cost				Local	Unit Rate	Each Rate	Cost			Unit				
			Unit Rate	Exch. Rate	P-I					Total	P-I	P-II		Total			
IN/HFEL-02	<b>Hand Arm Vibration and Vibration Severity Meter</b> Quick and easy to use Hand Arm Vibration measurements, single channel ** Also suitable for general purpose vibration measurements in the range 0.1 ms to 3000 ms <sup>2</sup> Large LCD screen which includes a quasi-analogue bar to show the current acceleration level Two parallel detectors, to display both RMS and Peak readings simultaneously Uses • Control exposure to hand arm vibration while finger in the workplace • Find calculated half and full-day exposure levels Aeq4 and Aeq8 based on the short measurements • Demonstrates a tool's compliance with vibration exposure safety standards • General purpose vibration measurements 0.1 ms to 3000 ms	16	GBP 20.00	135.82	43,462.40												
IN/HFEL-03	<b>DIGITAL PSYCHROMETER</b> Psychrometers are used anywhere that humidity and precipitation is a concern. Meteorology relies on psychrometers to predict weather. Museums, concerned with valuable, old work, use psychrometers as well. Greenhouses, humidors and saunas may also use psychrometers. Inside homes and in many industrial applications, engineers use psychrometers for air conditioning maintenance, comfort levels or even proper humidity levels for manufacturing.	20	\$ 48.00	104.50	100,320.00												
IN/HFEL-04	<b>FLASH MASTER LIGHT METER</b> Sekonic's compact flash and ambient meter provides great freedom combined with high precision. The Flash Master features flash/ambient analyzing in all flash modes, and an optional plug-in internal radio transmitter module (B&H code: SERTM) that eliminates the need for cord connections while measuring flash up to 100 feet away (when flash units are used with compatible radio receivers).	8	\$ 533.30	104.50	445,838.80												
IN/HFEL-05	<b>DIGITAL SOUND LEVEL METER</b> Records sound levels from 40 to 130 decibels Precise readings with +/-2 dB accuracy and 0.1 dB resolution Large LCD display with both number and analog graph readings Records sound values over time to track sound changes One-year limited warranty on parts and labor	16	\$ 119.00	104.50	198,968.00												
IN/HFEL-06	<b>HYGRO-THERMO-ANEMOMETER-LIGHT METER</b> • Pocket size rugged 4-in-1 meter for humidity, temperature, air, velocity and light • Ergonomic pocket size housing with large dual LCD simultaneous display of temperature and air velocity or relative humidity • Characters on display reverse direction depending on Hygro-Thermo-Anemometer or light mode • Data hold to freeze the displayed value • Records Min/Max readings	10	\$ 208.00	104.50	217,360.00												
IN/HFEL-07	<b>NOISE DOSIMETER/ DATA LOGGER WITH PC INTERFACE</b> • Measure total sound exposure over an 8-hour period • Perform OSHA and IEC noise accumulation surveys • Adjustable criterion level, exchange Rate, and threshold • Ideal for personal/workplace accumulated noise exposure • Stores 5 separate surveys including start/stop time, Dose, TWA and peak flags	6	\$ 933.00	104.50	584,991.00												
IN/HFEL-08	<b>Multimedia Video Task Analysis System (MVTA)</b> MVTA Multimedia Video Task Analysis & automation studies and ergonomic analysis of visually discerned activities using a novel graphical user interface.	4	N/Q	--	--												
IN/HFEL-09	<b>PORTABLE LIFT TABLE</b> Scissor Lift Cart, Load Capacity 400 lb., Frame Material Steel, Platform Style Fixed, Platform Length 27-1/2 In., Platform Width 17-5/8 In.	2	\$ 1,495.00	104.50	312,455.00												
IN/HFEL-10	<b>GRAVITY ROLLER CONVEYOR FOR PALLET DELIVERY</b> Roller Conveyor, 10 Ft. Straight, Between Frame 22 In., Overall Width 24 3/4 In., Bed Length 10 Ft., Overall Length 10 Ft.	2	N/Q	--	--												
IN/HFEL-11	<b>ERGONOMIC ELECTRIC ADJUSTABLE HEIGHT INDUSTRIAL WORKSTATIONS &amp; WORKBENCHES</b> Quiet Electric Screw Drive Lift System Soft Touch Bottom Motor Controller Heavy Duty 2" x 7 Gauge Welded Square Tube Steel 5" Swivel Locking Casters on Floor Levelers 8" or 12" Stroke Lift Height 1 1/2" Thick Laminated Top (Custom Colors) Powder Coated Signal Blue (Optional Custom Colors) Structural Aluminum Overhead Accessory Rack with	2	\$ 3,963.00	104.50	828,267.00												



Item Code	Description / Specification of items	Qty	M/s Rastek Technologies, Karachi						M/s Paktech Instruments Company, Karachi				
			Unit Rate	Exch. Rate	Cost			Local	Unit Rate	Exch. Rate	Cost		
					P-I	P-II	Total				P-I	P-II	Total
							11,286.00	--	N/Q	--	--	--	--
IN/HFEL-12	HEIGHT AND WEIGHT MEASUREMENT BODY SCALE This scale is controlled by microcomputer. It adopts the most fashionable design and has the exquisite appearance. This machine can measure people's height, weight and blood pressure by using the high-accuracy probe, high-performance transducer and arm blood pressure meter respectively. The measuring results can be displayed, printed and spoken. With its advantages of excellent repeatability and precise measuring result, this machine has been extensively approved in hospital, medical examination center, education, pharmacy, amusement parks, supermarket and other places crowds of people. It attracts customers strongly and brings good profit.	3	\$ 36.00	104.50	11,286.00			--	N/Q	--	--	--	--
IN/HFEL-13	Vicon MX System with 10 x T20 cameras including 2 site licensed software keys, calibration hardware, basic LS/Eng accessory kit, all necessary cabling, 1 x Gigaset Near Infra-Red Strobes and 12.5mm lenses. Force platform including cable, amplifier and mounting kit Upgrade from Gigaset to Gigaset Lab with ADC for connection to video cameras, force plate and EMG system. Camera mounts (tripods or wall mounts) including tripods for Basler cameras PC to run the system (Latest desktop with windows XP software) ViconQ software & Vicon Nexus software	1	GBP 54,457.00	135.82	7,396,349.74		7,396,349.74	--	N/Q	--	--	--	--
IN/HFEL-14	The ErgoKit <sub>®</sub> offers a comprehensive collection for accurate risk assessment in the field. As part of an effective ergonomics program, you should properly assess risk before prioritizing or implementing ergonomic improvement recommendations. With the ErgoKit <sub>®</sub> , you'll have all the tools you need to back up your recommendations with measurements and data to substantiate your reports and funding requests.	3	\$ 34.00	104.50	10,659.00		10,659.00	--	N/Q	--	--	--	--
IN/HFEL-15	The Roscraft Centurion Kit includes their most popular tools for anthropometric measuring. Roscraft is a leader in anthropometric instrument design and manufacturing. The company's mission is to help make people participants and witnesses in research in the service of humankind, providing both the tools and learning materials for assessing human physique and monitoring change with growth, exercise and nutrition.	3	\$ 40.00	104.50	12,540.00		12,540.00	--	N/Q	--	--	--	--
IN/HFEL-16	Digital Manual Muscle Tester is the backbone of the microFET product line. This cost-effective ergonomically designed HOGGAN microFET 2 accurately and objectively measures force in multiple planes. The optional MicroFET2 software downloads testing data from the MF2; the software automatically performs calculations and validity checks and creates the tables or graphs from testing data, allowing you to create high-impact session and comparison reports	3	\$ 1,734.00	104.50	543,609.00		543,609.00	--	N/Q	--	--	--	--

  
**Prof. Dr. Hussain Bux Marri,**  
 Chairman, Department of Industrial Engineering & Management  
 MUET, Jamshoro.

  
**Engr. Qamar-ul-Hassan Memon,**  
 Consultant to Vice Chancellor on Engineering Affairs  
 University of Sindh, Jamshoro

  
**Mr. Naqem Soomro**  
 Deputy Director (Procurement)  
 MUET, Jamshoro



## BIDDERS QUALIFICATION REPORT

### TENDER NAMELY

Name of work: Procurement of Lab Equipment for various laboratories of Department of Industrial Engineering & Management at MUET, Jamshoro.

1	Name of Procuring Agency	Deputy Director (Procurement)
2	Tender Reference Number	No. DD(Proc.)/MUET/JAM/128, Dated: 30-06-2016.
3	Method of Procurement	Single Stage- One Envelope Procedure
4	Name of Firm / Bidder	M/s Rastek Technologies, Karachi.
5	Registration with Income Tax Department	Yes
6	Registration with PEC	Yes
7	Bank Statement showing cash balance of 40% of Bid amount.	Yes
8	Tender Fee / Cost of Bidding Document.	Submitted
9	5% Earnest money	Submitted
10	Firm has not been Blacklisted previously by any executing agency.	Not Blacklisted.
11	All documents / information furnished are true & correct.	Yes
12	Compliant / non-compliant.	Compliant



*Prof. Dr. Hussain Bux Marri*

Chairman

Department of Industrial Engg & Management  
MUET, Jamshoro



*Nadeem Soomro*

Deputy Director (Procurement)  
MUET, Jamshoro



*Engr. Qamar-ul-Hassan Memon*

Consultant to Vice Chancellor on Engineering Affairs,  
University of Sindh, Jamshoro



**STATEMENT SHOWING SELECTED LAB EQUIPMENT REQUIRED FOR VARIOUS LABORATORIES OF  
DEPARTMENT OF INDUSTRIAL ENGINEERING & MANAGEMENT, MUET, JAMSHORO.**

Item Code	Description / Specification of Items	Qty	Unit Rate	Exch: Rate	Cost			Local	Name of Vender	Remarks
					P-I	P-II	Total			
<b>1-</b>	<b>TIME AND MOTION STUDY LABORATORY</b>									
IN/TMSL-01	<b>DECIMAL DISPLAY STOPWATCH</b> Enter the distance, record the time and this stopwatch displays the speed in mph or kph. 100 memories of split and lap times. This Sper Scientific Stopwatch will count up or down to 20 hours in 1/100 second resolution and offers many advanced features. The large 3 line display simultaneously shows total elapsed time, split time, current lap time, lap counter and indicates low battery. This Stopwatch also has a unique LCD contrast adjustment and touch tone selectable buttons. The sonically welded case insures excellent water resistance.	20	\$ 76.00	104.50	158,840.00	-	158,840.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/TMSL-02	<b>SCIENTIFIC MICROCHRONOMETER</b> Microchronometer, TR 112 OS - 4-figure LCD time readout for minutes and seconds - programmable for up to 99 mins, 59 secs - 30 second audible alarm when timed period has expired - countdown function - memory function - case incorporates combined bench stand / pocket clip with magnet - with instructions in 3 languages - supplied with 1 x 1.5V AAA battery. Dimensions (WxDxH) 66 x 56 x 18mm Weight: 45g	20	\$ 16.00	104.50	33,440.00	-	33,440.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/TMSL-03	<b>DIGITAL EXPOSURE METER</b> Oversized LCD display shows all data and functions clearly and easily, even at full arm's length. Large analog™ (Gas-Gauge Style) Scale for easy fractional measurements Standard PC terminal for sync cord flash activation. Compact, ultra-thin design. Polaris is less than 1- inch thick and weighs just 4 oz. Unique multi-flash feature makes it simple to calculate how many times the flash must be fired to achieve a desired f/stop. Accurate to 1/10 f-stop.	4	\$ 768.00	104.50	321,024.00	-	321,024.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/TMSL-04	<b>MOTOR CAMERA RECORDER</b> Resolution 1920*1080 Shooting angle 140 Imaging sensor 5 million Record time 25H Video format MOV	10	\$ 47.00	104.50	49,115.00	-	49,115.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/TMSL-05	<b>VISTA EXPLORER, INCH LIGHTWEIGHT TRIPOD WITH TRIPOD BAG</b> • 3 way pan head with bubble level • Only 3 pounds • Quick release leg locks • Geared Center Post • Bag included	20	N/Q	--	--	--	--	--	--	Dropped
<b>2-</b>	<b>COMPUTER AIDED ENGINEERING LABORATORY</b>									
IN/CAEL-01	<b>KONICA MINOLTA 3D LASER SCANNER OR EQUIVALENT</b> VIVID 9i provides high precision, making it well suited for the dimensional measurement demands of industrial processes such as dies, casting, forging, sheet metal and molded plastics part production	1	N/Q	--	--	--	--	--	--	To be Re-tender after fresh prequalification of suppliers








Item Code	Description / Specification of Items	Qty	Unit Rate	Exch. Rate	Cost			Name of Vendor	Remarks
					P-I	P-II	Total		
IN/CIML-07	<b>SINGLE CONVEYOR UNIT</b> The Single conveyor unit consists of a belt conveyor that has sensors situated along its length. Two different sized metal boxes which are provided with the unit are placed in turn at the start of the conveyor and as the box travels along the conveyor it enters an area consisting of two sensors that determine the length of the box. At the end of the conveyor is a sorting area with a sensor and linear solenoid. In the sorting area, the sensor detects the box and through the program controlling the single conveyor, the box is either accepted and allowed to continue or rejected by the solenoid.	6	--	--	--	--	--	--	Dropped
IN/CIML-08	<b>5 Axis Robot Arm</b> The 5ARA is a complete self-contained five axis vertically articulated robot arm system designed for bench top automation. The hand terminates in a mounting plate for grippers, and comes standard with electric gripper fitted. The 5ARA uses light weight, high efficiency digital motors driving through steel reinforced polyurethane timing belts and the compact micro-stepping drives providing both speed and precise control. The 5ARA includes the simple to use controller with fast CPU and DSP processors an incremental optical encoders and an intuitive teach pad.	4	--	--	--	--	--	--	Dropped
IN/CIML-09	<b>Flexible Manufacturing System (Complete set)</b> All key sequences of fully automated flexible manufacturing system can be covered: Buffer for unprocessed parts, separation, CNC machine loading with robot, CNC machining processes, work piece removal from machine with robot, finished parts buffer, SCADA option, DNC option.	1	--	--	--	--	--	--	To be Re-invited after fresh prequalification of suppliers
<b>4 HUMAN FACTORS / ERGONOMICS LABORATORY (NEW / PROPOSED)</b>									
IN/HIFEL-01	<b>Electronic Push/Pull Dynamometer</b> Superior load cell force measurement taking 30 readings per second, rugged aluminum housing, separate peak memory for push and pull results, auto-shut off, pushbutton calibration, and an LCD display in pounds, kilograms or newtons. Set includes: three padded attachments and a single handle for push tests, a hook and double handle set for pulling and lifting tests, a 9-volt battery, an AC adapter, plastic carrying case, and a user's manual. Measures 3-3/4"L x 2-1/2"W x 1-1/2"H (9 x 6 x 4 cm). Weighs less than a pound. Latex free.	4	\$ 3,700.00	104.50	1,546,600.00	-	1,546,600.00	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HIFEL-02	<b>Hand Arm Vibration and Vibration Severity Meter</b> Quick and easy to use Hand Arm Vibration measurements, single channel ** Also suitable for general purpose vibration measurements in the range $0.1 \text{ ms}^{-2}$ to $3000 \text{ ms}^{-2}$  Large LCD screen which includes a quasi-analogue bar to show the current acceleration level Two parallel detectors, to display both RMS and Peak readings simultaneously Uses • Control exposure to hand arm vibration white finger in the workplace • Find calculated half and full-day exposure levels Aeq4 and Aeq8 based on the short • Demonstrates a tool's compliance with vibration exposure safety standards • General purpose vibration measurements $0.1 \text{ ms}^{-2}$ to $3000 \text{ ms}^{-2}$	8	GBP 20.00	135.82	21,731.20	-	21,731.20	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HIFEL-03	<b>DIGITAL PSYCHROMETER</b> Psychrometers are used anywhere that humidity and precipitation is a concern. Meteorology relies on psychrometers to predict weather. Museums, concerned with valuable, old work, use psychrometers as well. Greenhouses, humidors and saunas may also use psychrometers. Inside homes and in many industrial applications, engineers use psychrometers for air conditioning maintenance, comfort levels or even proper humidity levels for manufacturing.	10	\$ 48.00	104.50	50,160.00	-	50,160.00	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016




Item Code	Description / Specification of Items	Qty	Unit Rate	Exch. Rate	Cost			Local	Name of Vendor	Remarks
					P-I	P-II	Total			
IN/HFEL-04	<b>FLASH MASTER LIGHT METER</b> Sekonic's compact flash and ambient meter provides great freedom combined with high precision. The Flash Master features flash/ambient analyzing in all flash modes, and an optional plug-in internal radio transmitter module (B&H code: SERTM) that eliminates the need for cord connections while measuring flash up to 100 feet away (when flash units are used with compatible radio receivers)	4	\$ 533.30	104.50	222,919.40	-	222,919.40	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-05	<b>DIGITAL SOUND LEVEL METER</b> Records sound levels from 40 to 130 decibels Precise readings with $\pm 2$ dB accuracy and 0.1 dB resolution Large LCD display with both number and analog graph readings Records sound values over time to track sound changes One-year limited warranty on parts and labor	8	\$ 119.00	104.50	99,484.00	-	99,484.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-06	<b>HYGRO-THERMO-ANEMOMETER-LIGHT METER</b> <ul style="list-style-type: none"> <li>• Pocket size rugged 4-in-1 meter for humidity, temperature, air, velocity and light</li> <li>• Ergonomic pocket size housing with large dual LCD simultaneous display of temperature and air velocity or relative humidity</li> <li>• Characters on display reverse direction depending on Hygro-Thermo-Anemometer</li> <li>• Data hold to freeze the displayed value</li> <li>• Records Min/Max readings</li> </ul>	5	\$ 208.00	104.50	108,680.00	-	108,680.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-07	<b>NOISE DOSIMETER/ DATA LOGGER WITH PC INTERFACE</b> <ul style="list-style-type: none"> <li>• Measure total sound exposure over an 8-hour period</li> <li>• Perform OSHA and IEC noise accumulation surveys</li> <li>• Adjustable criterion level, exchange Rate, and threshold</li> <li>• Ideal for personal/workplace accumulated noise exposure</li> <li>• Stores 5 separate surveys including start/stop time, Dose, TWA and peak flags</li> </ul>	3	\$ 933.00	104.50	292,495.50	-	292,495.50	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-08	<b>Multimedia Video Task Analysis System (MNTA)</b> MNTA Multimedia Video Task Analysis automates time and motion studies and ergonomic analysis of visually discerned activities using a novel graphical user interface.	4	N/Q	--	--	--	--	--	--	Dropped
IN/HFEL-09	<b>PORTABLE LIFT TABLE</b> Scissor Lift Cart, Load Capacity 400 lb., Frame Material Steel, Platform Style Fixed, Platform Length 27-1/2 In., Platform Width 17-5/8 In.	2	\$ 1,495.00	104.50	312,455.00	-	312,455.00	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-10	<b>GRAVITY ROLLER CONVEYOR FOR PALLET DELIVERY</b> Roller Conveyor, 10 Ft. Straight, Between Frame 22 In., Overall Width 24 3/4 In., Bed Length 10 Ft., Overall Length 10 Ft.	2	N/Q	--	--	--	--	--	--	Dropped
IN/HFEL-11	<b>ERGONOMIC ELECTRIC ADJUSTABLE HEIGHT INDUSTRIAL WORKSTATIONS &amp; WORKBENCHES</b> Quiet Electric Screw Drive Lift System Soft Touch Button Motor Controller Heavy Duty 2" x 7 Gage Welded Square Tube Steel 5" Swivel Locking Casters or Floor Levelers 8" or 12" Stroke Lift Height 1 1/2" Thick Laminated Top (Custom Colors) Powder Coated Signal Blue (Optional Custom Colors) Structural Aluminum Overhead Accessory Rack with	1	\$ 3,963.00	104.50	414,133.50	-	414,133.50	--	M/s Rastek Technologies, Karachi	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture Any other Material Final Procurement Committee in its meeting held on 27-09-2016



Item Code	Description / Specification of items	Qty	Unit Rate	Exch. Rate	Cost			Local	Name of Vender	Remarks
					P-I	P-II	Total			
IN/HFEL-12	<b>HEIGHT AND WEIGHT MEASUREMENT BODY SCALE</b> This scale is controlled by microcomputer. It adopts the most fashionable design and has the exquisite appearance. This machine can measure people's height, weight and blood pressure by using the high-accuracy probe, high-performance transducer and arm blood pressure meter respectively. The measuring results can be displayed, printed and spoken. With its advantages of excellent repeatability and precise measuring result, this machine has been extensively approved in hospital, medical examination center, education, pharmacy, amusement parks, supermarket and other places crowds of people. It attracts customers strongly and brings good profit.	3	\$ 36.00	104.50	11,286.00	-	11,286.00	--	M/s Rastek Technologies, Karachi.	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture/ Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-13	Vicon MX System with 10 x T20 cameras including 2 site licensed software keys, calibration hardware, basic LS/Eng accessory kit, all necessary cabling, 1 x Giganet Near Infra-Red Strobes and 12.5mm lenses	1	GBP 80,707.00	135.82	10,961,624.74	-	10,961,624.74	--	M/s Rastek Technologies, Karachi.	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture/ Any other Material Final Procurement Committee in its meeting held on 27-09-2016
	Force platform including cable, amplifier and mounting kit	1								
	Upgrade from Giganet to GiganetLab with ADC for connection to video cameras, force plate and EMG system	1								
	Camera mounts (tripods or wall mounts) including tripods for Basler cameras	12								
	PC to run the system (Latest desktop with windows XP software)	1								
	ViconQ software & Vicon Nexus software	1								
IN/HFEL-14	The ErgoKit <sub>+</sub> offers a comprehensive collection for accurate risk assessment in the field. As part of an effective ergonomics program, you should properly assess risk before prioritizing or implementing ergonomic improvement recommendations. With the ErgoKit <sub>+</sub> , you'll have all the tools you need to back up your recommendations with measurements and data to substantiate your reports and funding requests.	3	\$ 34.00	104.50	10,659.00	-	10,659.00	--	M/s Rastek Technologies, Karachi.	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture/ Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-15	The Rosscraft Centurion Kit includes their most popular tools for anthropometric measuring. Rosscraft is a leader in anthropometric instrument design and manufacturing. The company's mission is to help make people participants and witnesses in research in the service of humankind, providing both the tools and learning materials for assessing human physique and monitoring change with growth, exercise and nutrition.	3	\$ 40.00	104.50	12,540.00	-	12,540.00	--	M/s Rastek Technologies, Karachi.	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture/ Any other Material Final Procurement Committee in its meeting held on 27-09-2016
IN/HFEL-16	Digital Manual Muscle Tester is the backbone of the microFET product line. This cost-effective, ergonomically-designed HOGGAN microFET 2 accurately and objectively measures force in multiple planes. The optional MicroFET2 software downloads testing data from the MF2; the software automatically performs calculations and validity checks and creates the tables or graphs from testing data, allowing you to create high-impact session and comparison reports.	1	\$ 1,734.00	104.50	181,203.00	-	181,203.00	--	M/s Rastek Technologies, Karachi.	Selected as per recommendations of the Departmental Experts and approved by the Equipment/ Furniture/ Any other Material Final Procurement Committee in its meeting held on 27-09-2016
Total Amount Rs.							16,268,165.34			

  
 Prof. Dr. Hussain Bux Marri,  
 Chairman, Department of Industrial Engineering & Management  
 MUET, Jamshoro

  
 Engr. Qamar-ul-Hussan Memon,  
 Consultant to Vice Chancellor on Engineering Affairs  
 University of Sindh, Jamshoro

  
 Mr. Nadeem Soomro  
 Deputy Director (Procurement)  
 MUET, Jamshoro