

	<p>भारतीय प्रौद्योगिकी संस्थान पालक्काड  <b>Indian Institute of Technology Palakkad</b>  अहलिआ एकीकृत कैम्पस, कोज़िहपारा  Ahalia Integrated Campus, Kozhipara  पालक्काड- 678557  Palakkad – 678 557</p>	<p>दूरभाषसंख्या/ Phone no:  04923 – 226300/590/586  ईमेल/ Email :  purchase@iitpkd.ac.in</p>
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Ref No: IITPKD/ELE/AA/ 044 / 2017

Date: 13.10.2017

**Due Date of the tender: 30.10.2017 @ 3 PM**

**TENDER FOR INVITING QUOTATIONS**

Dear Sirs,

On Behalf of Indian Institute of Technology Palakkad quotations are invited for **“Purchase of Raspberry PI 3 and Accessories”** confirming to the specification in the Annexure.

1. **Preparation of Bids:** - The tenders should be submitted **under two-bid system** (i.e.) Technical bid and Financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in technical bid. Financial Bid should indicate item – wise prices for the items mentioned in the technical bid. The technical and the financial bids should be put in separate cover and sealed. Both sealed covers should be put into a bigger cover.
2. The Quotations duly sealed and superscribed on the envelope **with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above. Fax and Email quotation are not acceptable.**
3. The price should be quoted per unit and packing and delivery charges should be indicated separately. The offer/bids should be exclusive of Taxes and Duties, which will be paid by the purchaser as applicable. However the percentage and of taxes and duties as on date should be clearly indicated.
4. The Quotations should be valid for **sixty days** from the due date and the period of delivery required should also be clearly indicated.
5. If the item is under DGS&D Rate contract No. and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate contract price (Please note that we are not Direct Demanding Officers). If so please send copy of the RC.
6. **Local Firms:** Quotations should be for free delivery to this Institute. If Quotations for Ex-Godown delivery charges should be indicated separately.
7. Outside Palakkad: Quotations should be for **F.O.R. at IIT Palakkad**. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If Ex-Godown, packing, forwarding and freight charges must be indicated.

8. Goods shall not be supplied without an official supply order.
9. **Custom Duty:** Custom Duty which will be paid at a concessional rate against duty exemption certificate.
10. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. No advance payment will be made. The Tenderer have to furnish the bank details along with tender like Account No, Account Name, IFSC Code, Bank address etc.
11. **Submission of Bids:** Quotation should be sent to the following address “**The Registrar, Indian Institute of Technology Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad -678 557, Kerala**”, Phone No: **04923 226 586/590**, Email: [purchase@iitpkd.ac.in](mailto:purchase@iitpkd.ac.in).
12. **Delivery Period:** The quotation should indicate clearly when delivery and installation to be made.
13. **Delay in Supply or Liquidate damages:** If the supplier fails to deliver the stores within the time specified in the purchase order, the purchaser will recover from the supplier as liquidated damages a sum of one- half of one percent (0.5%) of the P.O value of the undelivered stores for each calendar week of delay. The total liquidated damages shall not exceed five percent (5%) of the P.O price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered. If certain components are not delivered in time, the stores will be considered as delayed until such time as the missing parts are delivered.
14. **Late offer:** The quotation received after due date will not be considered. Please ensure that your offer is sent well in advance to reach the Institute by the due date.
15. **Loading and unloading charges will be borne by the supplier.**
16. **Warranty:** Warranty Clause should be indicated clearly.
17. **Acceptance and Rejection:** IIT Palakkad has the right to accept the whole or any parts of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Yours faithfully,

Encl: Specifications

**Registrar, IIT Palakkad**

## Technical Specifications for Purchase of Raspberry PI 3 and accessories

### Warranty Condition :

At least six months warranty against manufacturing defects must be provided for all items listed below, expect item (3) below. In case of item (3), Official Raspberry Pi 3 B Power Supply, a warranty of at least one year is required.

### Clarification regarding products from “Generic Manufacturers” :

Items 1, 2, 3, 4, 5, 6, 8, 10, 11 must be “Official Products”, i.e they must be sourced from suppliers listed via <https://www.raspberrypi.org/products/> . Appropriate proof must be provided. Products from “Generic Manufacturers” for these products will lead to disqualification of the bid. Other items must be sourced from reputable manufactures only.

Sl. No.	Description of Items	Quantity
1.	Official Raspberry PI 3 B board with the following (a) Broadcom BCM2837 64bit Quad Core Processor powered Single Board Computer running at 1.2GHz, 1GB RAM (b) BCM43438 WiFi on board (c) Low Energy Bluetooth on board (d) 40pin extended GPIO (e) 4 x USB 2 ports (f) 4 pole Stereo output and Composite video port (g) Full size HDMI CSI camera port for connecting the Raspberry Pi camera (h) DSI display port for connecting the Raspberry Pi touch screen display (i) Micro SD port for loading operating system and storing data Upgraded switched (j) Micro USB power source	50
2.	Official Raspberry Pi 3 B Enclosure (a) Official enclosure from the Raspberry Pi Foundation (b) 5 part enclosure with removable lid and sides (GPIO side and HDMI side) (c) Product must be supplied assembled with 4 rubber feet loose inside	50
3.	Official Raspberry Pi 3 B Power Supply (a) Output at least 5V, 2.5 A (b) Input must be compatible with 220V – 240V standard Indian plug socket. (c) 1.5m micro USB B Lead (d) ErP Level 6 (or equivalent) Efficiency Rating (e) At least 50,000 Hour MTBF (f) Protection for Short circuit, over current, over voltage (g) 1 Year Warranty	50
4.	Official WIPI – WiFi dongle for the Raspberry Pi 3 B (a) Physical Interface USB 2.0 (b) Wireless Standards IEEE 802.11n; backward compatible with IEEE 802.11g and IEEE 802.11b. (c) Wireless Performance : With 11b -- 1/2/5.5/11Mbps, 11g -- 6/9/12/18/24/36/48/54 Mbps; 11n -- up to 150 Mbps (d) Frequency range 2.4 to 2.4835 GHz (e) Transmit power 20dBm (max) (f) Security : WPA-PSK/WPA2-PSK, WPA/WPA2, 64/128/152 bit WEP encryption (g) Natively supported by latest Raspbian operating system.	50

5.	<p>Official Raspberry Pi 3 B Camera board for imaging and video</p> <ul style="list-style-type: none"> <li>(a) 8 megapixel image sensor</li> <li>(b) 3280 x 2464 pixel static images</li> <li>(c) 1080p30, 720p60 and 640x480p60/90 video.</li> <li>(d) Attaches to Pi CSI interface, designed especially for interfacing to cameras.</li> <li>(e) Camera is supported in the latest version of Raspbian OS</li> <li>(f) Must include appropriate cables and jumpers</li> </ul>	20
6.	<p>Official Raspberry Pi 3 B NoIR Camera board for imaging and video</p> <ul style="list-style-type: none"> <li>(a) 8 megapixel image sensor capable of taking infrared photographs</li> <li>(b) Fixed focus lens with No InfraRed (NoIR) filter on the lens</li> <li>(c) 3280 x 2464 pixels static images</li> <li>(d) Video at 1080p30, 720p60 and 640x480p90 resolutions</li> <li>(e) Attaches to Pi CSI interface, designed especially for interfacing to cameras.</li> <li>(f) Camera is supported in the latest version of Raspbian OS</li> <li>(g) Must include appropriate cables and jumpers</li> </ul>	20
7.	<p>Raspberry Pi Camera Case/Enclosure</p> <ul style="list-style-type: none"> <li>(a) The case is a two-piece injection-moulded ABS enclosure that snaps together around the Raspberry Pi Camera, keeping the camera firmly in place.</li> <li>(b) Camera is supported in the latest version of Raspbian OS</li> <li>(c) Wall Mountable (Screws and double tape must be included)</li> <li>(d) Compatible with standard and NoIR Raspberry PI Cameras.</li> </ul>	40
8.	<p>Official 7" touch screen display for Raspberry Pi 3 B</p> <ul style="list-style-type: none"> <li>(a) Screen Dimensions: 194mm x 110mm x 20mm (including standoffs)</li> <li>(b) Viewable screen size: 155mm x 86mm</li> <li>(c) Screen Resolution 800 x 480 pixels</li> <li>(d) 10 finger capacitive touch.</li> <li>(e) Connects to the Raspberry Pi board using a ribbon cable connected to the DSI port.</li> <li>(f) Adapter board to power the display and convert the parallel signals from the display to the serial (DSI) port on the Raspberry Pi needs to be provided</li> <li>(g) Support for the latest version of Raspbian OS</li> </ul>	10
9.	<p>Pi 7-Inch LCD Touch Screen Case</p> <ul style="list-style-type: none"> <li>(a) For Use With the Official Raspberry Pi 7-Inch LCD Touch Screen and Raspberry Pi 3 B</li> <li>(b) Camera board connector slot and wall mount features</li> <li>(c) Cut-outs for all connections</li> <li>(d) Easy clip rear cover to protect/access all internal connectors</li> <li>(e) Four screw fixings supplied for attachment to the touch screen</li> </ul>	10
10.	<p>Official 2.4" HAT Primary Display for the Raspberry Pi 3 B</p> <ul style="list-style-type: none"> <li>(a) 240x320 pixel Resolution, RGB 65K true to life colours, TFT Screen with integrated 4-wire Resistive Touch Panel.</li> <li>(b) High Speed 46MHz SPI connection to the Raspberry P</li> <li>(c) Typical frame rate of 17 Frames per second (FPS), higher if image can be compressed further by the kernel. Lower if no compression is possible.</li> <li>(d) Powered directly off the Raspberry Pi, no external power supply is required.</li> <li>(e) On/Off or PWM controlled backlight, selectable by on board jumper.</li> </ul>	10

11.	<p>Official Raspberry Pi 3 B Sense HAT</p> <p>(a) Gyroscope – angular rate sensor: <math>\pm 245/500/2000</math>dps</p> <p>(b) Accelerometer - Linear acceleration sensor: <math>\pm 2/4/8/16</math> g</p> <p>(c) Magnetometer - Magnetic Sensor: <math>\pm 4/8/12/16</math> gauss</p> <p>(d) Barometer: 260 – 1260 hPa absolute range (accuracy depends on the temperature and pressure, <math>\pm 0.1</math> hPa under normal conditions)</p> <p>(e) Temperature sensor (Temperature accurate to <math>\pm 2</math> °C in the 0-65 °C range)</p> <p>(f) Relative Humidity sensor (accurate to <math>\pm 4.5\%</math> in the 20-80%rH range, accurate to <math>\pm 0.5</math> °C in 15- 40 °C range)</p> <p>(g) 8x8 LED matrix display</p>	25
12.	<p>Raspberry Pi 3 B Sense HAT Enclosure</p> <p>(a) Designed to house the Raspberry Pi 3 B and HAT PCB's</p> <p>(b) All cut -outs are pre-cut into the case</p> <p>(c) Camera ribbon slot in enclosure lid</p> <p>(d) Display ribbon slot in enclosure lid</p> <p>(e) Four self adhesive feet</p> <p>(f) Label recess on enclosure base</p>	25
13.	<p>32GB Micro SD Card for Raspberry Pi with NOOBS Image</p> <p>(a) Micro SD cards must be original SanDisk/Samsung/Transcend products.</p> <p>(b) Loaded with latest NOOBS image compatible with Raspberry Pi 3 B.</p> <p>(c) Supports Speed Class Specification Class 10 or better</p>	50
14.	<p>1m length HDMI-HDMI cable</p> <p>(a) 30/6.0 HDMI cable full 19+1pins, 30AWG, 6.0MM</p> <p>(b) Version with Ethernet and Audio return channel</p> <p>(c) Nickel plated contact to resist corrosion and for optimum connection and maximum signal transfer</p> <p>(d) Triple shielded to protect signal: Two layers of Aluminium Mylar &amp; One layer of Aluminium Magnesium (128 Strand)</p> <p>(e) RoHS soft PVC jacket for lifetime protection</p> <p>(f) Support 3D, 4K*2K, 17.8Gbps, 2160P/60Hz and X.V. color</p>	50

### Who Can Participate?

1. Bidder should be either an Original Equipment Manufacturer (OEM) of Raspberry PI boards/accessories or authorized dealer having purchase and support agreement with such an OEM. Appropriate documentary proof must be provided.
2. The bidder should be a company registered under the Companies Act, 1956/2013 OR a Limited Liability Partnership (LLP) OR a registered partnership firm OR a sole proprietorship entity. Appropriate Registration/ incorporation certificate to be submitted.
3. Bidder must be in existence in the business of supply of electronics hardware or allied fields for a minimum period of 2 previous financial years (i.e., before or since 01-April-2015). Documentary evidence of experience must be provided.
4. Compliance sheet for the specification & OEM Brochure has to be attached along with Technical bid. Vendor has to fill the compliance sheet and mention page number or reference number in OEM brochure. Unfilled / partial filled sheets lead to disqualification