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**VISION GROUP ON SCIENCE AND TECHNOLOGY**

**Department of Information Technology, Biotechnology & Science & Technology**

Karnataka Government Secretariat, No.702, 7th Floor, 4th Stage, M. S. Building, Dr. Ambedkar Veedhi, Bengaluru–560 001

**Website:** [**www.vgst.in**](http://www.vgst.in) **Email:** [**visiongroup.st@gmail.com**](mailto:visiongroup.st@gmail.com)

**GRANT RELATED DOCUMENT**

**(GRD)**

**(Proforma & Annexures)**

**(to be submitted by Programme Co-ordinator/ Grantee Institution to VGST**

**for Approval)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GRD No. \_\_\_\_\_\_\_\_\_\_** | | **No. of Instalments: 2** | | |
| **VGST Scheme** | | **Karnataka Fund for Infrastructure strengthening in Science & Technology**  **Level – 1 (K-FIST L1)** | | |
| **Project Title/ Theme/ Topic** | | **IoT-based intelligent environment that reduces latency to give an enhanced classroom experience.** | | |
| **Duration of VGST Scheme** | |  | | |
| **Name of Programme**  **Co-ordinator (PC)&Department** | |  | | |
| **Programme Co-ordinator (PC) Contact Details** | | **Phone :** | | |
| **Mob :** | | |
| **Email :** | | |
| **Name and Address of the Head of the Institution (including Phone Nos. & Email)** | |  | | |
| **Total VGST Grant Sanctioned (in lakhs)** | | **Rs.20 lakhs** | | |
| **Status of VGST grant release (Rs. in lakhs)** | **VGST OFFICE USE** | | | |
| **Phase/FY** | **Cheque No.** | **Date of cheque** | **Grant (Rs.in lakhs)** |
| **I:** |  |  | **10.00** |
| **II:** |  |  | **10.00** |

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**GRD No.**

**PART – A**

|  |  |  |  |
| --- | --- | --- | --- |
| **GRANT RELATED DOCUMENT (GRD) - An overview**  **Guidelines to Programme Co-ordinator to utilize VGST grants** | | | |
| **PART** | **PROFORMA** | **ANNEXURE NO.** | **ANNEXURE TITLE** |
| **PART – A**  **(Before Procurement)** | **PROFORMA – A**  Programme Abstract | \_\_\_ | \_\_\_ |
| **(Submission of**  **PART-A of GRD for VGST approval is mandatory)** | **\*** | Important Information and VGST – Guidelines, Terms & Conditions (GTC) |
|  | **PROFORMA – B**  Budget Estimate |
| ANNEXURE - 1 | Budget Estimate of Non Recurring Budget – NRE |
| Budget Estimate of Recurring Budget – RE |
| Technical Specification of the Equipment’s**\*** |
| Justification for the Purchase of Equipment’s **\*** |
| ANNEXURE - 2 | Purchase Committee **\*** |
| ANNEXURE – 3 | Programme Co-ordinator’s Declaration **\*** |
| ANNEXURE –4 | Letter from collaboration from reputed researcher/ Institution/ Industry  **\*** |
| **PART – B**  **(After Completion of Programme)** | ANNEXURE - 5 | | Financial status proforma **\***  (to be Authenticated by Principal & PC) |
| ANNEXURE - 6 | | Passbook photocopy attested by the Principal and Programme -coordinator |
| ANNEXURE - 7 | | 2 Original copies -Utilization Certificate (UC) **\***issued by AG empanelled Auditor  (as per the format) |
| **PART – C**  **(After Completion of Programme)** | Annual Progress Report /  Final Progress Report **\*** | | 2 Original copies - Progress Report should be submitted to VGST in a separate **Hard Bound** Book with Publications and Photographs of the procured Equipment. |

**(Before Procurement)**

1. **Grantee Institutions are requested to submit ‘PART – A’ of GRD (with Annexure – 1 to 4) to VGST for the approval. Tendering/ Procurement procedure has to be initiated only after obtaining VGST’s approval for PART– A of GRD.**
2. **Grantee Institutions are hereby requested to submit PART-B and PART C of GRD in soft copy (CD/ DVD) VGST.**

**\* It is mandatory to make the entries only in the VGST formats (Annexures 1 to 7).**

**Any other kind of formats sent by Programme Co-ordinator/ Grantee Institutions will not be considered by VGST.**

**Government of Karnataka**

**VISION GROUP ON SCIENCE AND TECHNOLOGY**

Department of Information Technology, Biotechnology & Science and Technology

**IMPORTANT INFORMATION FOR THE ATTENTION OF PROGRAMME CO-ORDINATOR/ GRANTEE INSTITUTION**

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| --- |
| 1. To facilitate hassle free procurement of equipments by the Grantee Institution (GI), VGST desires to be flexible by permitting “Package Approval” instead of “Item-wise Approval” in procurement procedure under non-recurring expenditure. Yet, the total non-recurring expenditure shall not exceed specified percentage (80% / 90%) of the VGST annual grant. During the re-appropriation process, the cost/ price of single item shall not exceed 10 to 15% of the approved cost of the equipment by VGST. It is strictly not allowed to deviate the expenditure more than 15% by the Programme Co-ordinator/ Grantee Institution. 2. At the end of each financial year, the unspent grant (both non-recurring & recurring expenditure) shall be returned to VGST through Cheque or DD drawn in favour of “Managing Director, KSTePS” or it can be carry forward to utilize along with the next Instalment by making entry in “Financial status proforma”. Carrying forward of unspent grant is applicable only to those who receive the II or III instalment of VGST grant. 3. In case of anomaly/ violation in the purchase procedure from the VGST approved budget expenditure as well as delay in submission of purchase documents (PART-B of GRD) to VGST, both the Programme Co-ordinator & Head of the Grantee Institution will be held responsible. 4. PART-A: shall be submitted within 15 days after receiving the format. 5. PART-B (Annexure 5, 6 & 7): purchase documents shall be submitted within 3 months after receiving the approved PART-A. 6. PART-C: progress reports shall be submitted at regular intervals. A detailed project report should be submitted within10 months after the approval of PART-A for the programmes, which are of one-year duration. For schemes beyond one-year, annual interim report should be submitted. At the end of project, a detailed report highlighting achievements, relevance and application to the society, growth for S & T research and developments, publications, patents, prototypes and products developed from the project should also be submitted. 7. Grants should be utilized within one year as per the projected schedule of the project phases, which shall be considered from the date of issue of Cheque. 8. In case of on-submission of PART-B & non-implementation of programme within the stipulated period without any valid reason(s), the project will be terminated. In such a circumstance, the Grantee Institution shall be liable to refund the entire grant amount along with interest and penalty through Cheque or DD favouring “MANAGING DIRECTOR, KSTePS” without any delay. |

**GUIDELINES, TERMS & CONDITIONS**

**(for the utilization of VGST grant)**

1. VGST grant released under the CESEM programme is primarily for strengthening Science and Technology infrastructure facilities for performing research work and to enhance quality teaching in higher educational institutions of the identified Department in Universities/Colleges and other Higher Educational Institutions for quality teaching and research. The grant shall be utilized exclusively for this purpose.
2. **VGST grant shall not be utilized for the construction of rooms, buildings, computers, printers, scanners, UPS, appointment of support staff and related expenditures.**
3. While receiving the VGST grant, both the Head of institution and the Programme Co-ordinator shall submit “AGREEMENT & DECLARATION FORM” to VGST to ensure the effective implementation of the programme strictly in accordance with Guidelines, Terms & Conditions of VGST.
4. Faculty member who applies for VGST grant will be considered as the “Programme Co-Ordinator” for the CESEM/ CISEE/ K-FIST L1 & L2/ RGS/F programme. There is a provision for additional or Co-Programme Co-ordinator for sanctioned VGST scheme.
5. Grantee institution has to constitute a “Purchase Committee” which includes Head of the Institution as Chairman of the Purchase Committee with additional 4 members as indicated in Annexure-2 of Grant Related Document. The Purchase Committee is authorized to procure only VGST approved equipment/ items as indicated in the Budget Estimate (Non-Recurring) (PART-A of Grant Related Document).
6. All issues, matters & procedures related to the procurement of equipment/ items etc. shall be recorded in the “Proceedings of the Purchase Committee” (Annexure-2) duly signed by all the 5 members of the purchase committee & there shall not be any deviation in purchase/ procurement of Equipment’s/ items (Approved Cost) from the VGST approved Technical Specification of the Equipment & Justification of the purchase.
7. Programme Co-ordinator/ Grantee Institution is not allowed to utilize/re-appropriate recurring expenditure for procuring items indicated under Non-Recurring Expenditure.
8. To facilitate hassle free procurement of equipment by the Grantee Institution, VGST desires to be flexible by permitting “Package Approval” instead of “Item-wise Approval” in procurement procedure under Non-Recurring Expenditure. Yet, the total Non-Recurring Expenditure shall not exceed specified percentage (80% / 90%) of the VGST Annual grant.
9. During the appropriation process, the cost/ price of single item shall not exceed 10% to 15% of the approved cost of the respective equipment by VGST. Further deviation is strictly not allowed.
10. It is mandatory for the grantee Institution to purchase all the equipment as indicated in the non-recurring expenditure.
11. Grants released under the VGST scheme viz., CESEM need to be kept in a separate savings bank account of a nationalized bank only under the head “VGST grant” .The accrued interest on the grant needs to be reflected in Financial Status Proforma (Annexure-5) annually.
12. VGST grant shall not be utilized for organizing and attending Workshops/Seminars/ Conferences, Orientation & Training programmes by the faculty members, as well as construction of building etc. However, grants sanctioned under FDP-Engg. is the only approved scheme for organizing faculty development program for engineering colleges.
13. Grantee Institution shall procure only those equipment/ items for which VGST’s approval is accorded in the Budget Estimate (both Non-Recurring & Recurring) (PART-A of Grant Related Document). Any deviation from this will lead to withdrawal of VGST Grant and further grant will not be released.
14. Grantee institution shall abide to follow the percentage of expenditure sanctioned and approved by VGST - Non-Recurring expenditures such as Equipment’s, Software’s etc (80% or 90% of VGST grants) and Recurring expenditures (20% or 10% of VGST grants) such as Contingency, Books, Journals etc.,

1. Any payment towards Non–recurring and Recurring for Rs. 500/- and above shall be only through A/C payee cheque / Demand Draft (DD) / online Money Transfer (RTGS).
2. **Interest amount earned from the VGST grants at the end of the financial year, cannot be utilized without the approval of VGST.**
3. VGST grant awardees has to submit PART-A of Grant Related Document to VGST for approval of the Budget Estimate (both Non-Recurring & Recurring) only once in a given year, which shall be as soon as the grant is received. Subsequent submissions of PART-A of Grant Related Document for approval in the same Financial Year will not be entertained.
4. All the assets acquired from the VGST grants will be the property of the Department of the grantee institution. A register of the permanent/semi-permanent assets acquired wholly or partly out of this grant shall be maintained and a copy thereof furnished to this Department. Such register / ledger of assets and accounts maintained shall be available or open to scrutiny by Audit.
5. In order to give visibility to VGST schemes viz., CESEM the respective bonafide Department should acknowledge and display the name board as: **Catalysed and Supported by Vision Group on Science and Technology, Dept. of Science and Technology, Govt. of Karnataka**.
6. After VGST grant utilization, the Grantee Institution shall furnish PART-B & PART - C of Grant Related Documents accompanied with Annexures 5 to 7 to VGST, DST, GoK.
7. Submission of Annexure 5to 7 (purchase procedures & documents) of Grant Related Document and Xerox copies of Bank Pass Book by Grantee institution shall be submitted to VGST
8. Release of 2nd or 3rd instalment VGST grants, if any is considered only after receiving Utilization Certificate in the suggested format of VGST by the Grantee institution and review committee recommendation.
9. Unutilized grant at end of the financial year shall be carried forward (if the program is continued) or to be refunded (if the program is completed)’ whichever the case is applicable by making entries in Financial Status Proforma (Annexure -5).
10. UC shall have to be issued by the AG empanelled Chartered Accountant, which shall also be counter signed by both Project Co-ordinator and Head of the Institution.
11. KSTePS auditors/ empanelled auditor and Auditor General-Karnataka, at their discretion shall have the right to access to the book of accounts and ledgers of the VGST Scheme CESEM whichever is applicable). DST, GoK may also nominate a CAG empanelled Auditor for the Audit of account of the VGST programme.
12. After the completion of the VGST programme, the unspent grant if any shall be returned to VGST by Cheque or DD favouring (payable at Bangalore) “**Managing Director, KSTePS”**.
13. Periodic progress of the program will be monitored at regular intervals. During the concluding period, Programme Progress Evaluation Committee (PPEC) will visit the College/ Department for final review & inspection of the implemented VGST programme.
14. Any enquiries / clarifications by the Programme Co-ordinator / Grantee institution with respect to implementation of VGST scheme will be entertained only through email ([visiongroup.st@gmail.com](mailto:visiongroup.st@gmail.com)). and letters.
15. Both Grantee institution & the Programme Co-ordinator undertakes the responsibility of implementing the sanctioned VGST-programme completely within the duration fixed by VGST. In case of any delay in the implementation of the programme within the stipulated period (either by Grantee institution & the Programme Co-ordinator), the institution will refund/ return the left over grant to VGST through crossed cheque or DD favouring “**Managing Director, KSTePS”**.
16. In the event of transfer/ retirement/ termination of the Programme Co-ordinator, the Head of the Grantee Institution is authorized to nominate any other competent faculty member in the same department to act as a Programme Co-ordinator only after obtaining permission from review committee.
17. For quick follow up action from VGST, indicate Grant Related Document No. without fail in all communications.
18. The Programme co-ordinator should commence his / her research work soon after receiving the cheque and communicate R & D details through PART -A to the VGST office.
19. If any deviation or violation from the approved items/ cost and procurement procedures, VGST subcommittee reserves the right to cancel the release of next instalment of grants / ordering for recovery of grants.

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**PROFORMA - A**

**(PROGRAMME ABSTRACT)**

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| 1 | Address of the Institution |  |
| 2 | VGST - Scheme | **Karnataka Fund for Infrastructure strengthening in Science & Technology**  **Level – 1(K-FIST L1)** |
| 3 | Name of the Department in which the programme is being implemented: |  |
| 4 | Name and Designation of Programme Co-ordinator |  |
| 5 | VGST – Grant Financial Year (FY) |  |
| **PROGRAMME ABSTRACT – A Brief Note** | | |
| **TITLE: -** | | |
|  | | |

**ANNEXURE - 1**

**PROFORMA – B**

**(FOR -1st Phase/Year)**

**BUDGET ESTIMATE - NON - RECURRING EXPENDITURE (NRE)**

**NRE UNDER K-FIST L1: Procurement through**

**E-Tendering Process - ETP**

(Restricted to 90% of Rs. 10.00 lakhs only, which works out to maximum of Rs.9.00 lakhs) (1 page only)

***(Equipment/Items above Rs.1.00 lakh have to be procured through E-tendering process, which shall have to be entered in NRE - ETP)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | Items permitted to be procured only through E-tender process | **Technical Specification of Equipment** | **Unit Price**  **(Rs.)** | Total Unit/ Quantity required | Total Estimated Cost  (Rs. in lakhs)  (to be approved by VGST) |
| **NRE 1** |  |  |  |  |
| **NRE 2** |  |  |  |  |
| **NRE 3** |  |  |  |  |

**PROFORMA – B**

**(FOR -1st Phase/Year)**

**BUDGET ESTIMATE - NON - RECURRING EXPENDITURE (NRE)**

**NRE UNDER K-FIST L1: Procurement through**

**Manual Tendering Process – MTP**

(Restricted to 90% of Rs. 10.00 lakhs only, which works out to maximum of Rs.9.00 lakhs) (1 page only)

***(Procurement of Equipment’s/ Items below Rs.1.00 lakh only. This is also has to be entered in NRE - MTP)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Items permitted to be procured only through E-tender process** | **Technical Specification of Equipment** | **Unit Price**  **(Rs.)** | **Total Unit/ Quantity required** | **Total Estimated Cost**  **(Rs. in lakhs)**  **(to be approved by VGST)** |
| **NRE 1** | UART Capacitive Fingerprint Sensor: | **₹1770** | 4 | 0.0708 |
| **NRE 2** | Absolute Native Electronics W1209 50~100 digital temperature controller thermostat | **₹199** | 8 | 0.01592 |
| **NRE 3** | Tolako 5v Relay Module | **₹65** | 20 | 0.013 |
| **NRE 4** | PIR Motion Detector Sensor Module HC-SR501 | **₹57** | 12 | 0.00684 |
| **NRE 5** | Raspberry Pico | **₹300** | 1 | 0.003 |
| **NRE 6** | Raspberry Pi | **₹2685** | 1 | 0.02685 |
| **NRE 7** | Transmitter and Receiver | **₹315** | 4 | 0.0126 |
| **NRE 8** | Wireless Connectivity (Wi-Fi Module) | **₹319** | 1 | 0.00319 |
| **NRE**  **9** | IoT Platform: ThingSpeak License | **₹6892** | 1 | 0.06892 |
| **NRE - Total Amount** | | | | **Rs. 0.22112 lakhs** | |

**BUDGET ESTIMATE - RECURRING EXPENDITURE (RE)**

**(FOR -1st Phase/Year)**

(Restricted to 10% of Rs. 10.00 lakhs only, which works out to maximum of Rs. 1.00 lakhs) (1 page only)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPENDITURE TOWARDS (Consumables, Contingency etc.)** | | | | |
| **Sl. No.** | **Items** | **Percentage of Recurring Expenditure allowed by VGST**  **(Item Wise)** | **Recurring Expenditure permitted by VGST** | **Total Estimated Cost**  **(Rs. in lakhs)**  **(to be approved by VGST)** |
| RE 1 | Project Assistant | **APPLIED FOR ONLY CESEM SCHEME** | | |
| RE 2 | Chemicals | Upto 60% | Upto Rs. 60,000/- only |  |
| RE 3 | Glassware |
| RE 4 | Plastic Ware |
| RE 5 | Biological Specimen |
| RE 6 | Electrical & Electronics spare parts | Upto 7.5% | Upto Rs. 7,500/- only | **0.075 lakhs** |
| RE 7 | Mechanical Spare parts | Upto 7.5% | Upto Rs. 7,500/- only |  |
| RE 8 | Contingency | Upto 20.0% | Upto Rs. 20,000/- only | **0.20 lakhs** |
| RE 9 | Books & Journal | Upto 5% | Upto Rs. 5,000/- only | **0.05 lakhs** |
| **TOTAL RECURRING EXPENDITURE** | | **100.0%** | **Rs. 4,00,000/- only** | **Rs. 0.325 lakhs** |

**TECHNICAL SPECIFICATION OF EQUIPMENT**

**(For Non-Recurring Expenditure only)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of Equipment & Accessories** | **Quantity** | **Details of Technical Specification as indicated/proposed in the e-procurement document** | |
| 1 | UART Capacitive Fingerprint Sensor | 4 | * Sensor type: capacitive touching * Resolution: 508DPI * Image pixels: 192×192 * Image grey scale: 8 * Sensor size: R15.5mm * Fingerprint capacity: 500 * Matching time: <500ms (1: N, and N≤100) * False acceptance rate: <0.001% * False rejection rate: <0.1% * Operating voltage: 2.7~3.3V * Operating current: <50mA * Sleep current: <16uA * Anti-electrostatic: contact discharge 8KV / aerial discharge 15KV * Interface: UART * Baudrate: 19200 bps | |
| 2 | Absolute Native Electronics W1209 50~100 digital temperature controller thermostat | 8 | * Temperature Control Range: -50 ~ 110 C * Resolution at -9.9 to 99.9: 0.1 C * Resolution at all other temperatures: 1 C * Measurement Accuracy: 0.1 C * Control Accuracy: 0.1 C * Refresh Rate: 0.5 Seconds * Input Power (DC): 12V * Measuring Inputs: NTC (10K 0.5%) * Waterproof Sensor: 0.5M * Output: 1 Channel Relay Output, Capacity: 10A | |
| 3 | Tolako 5v Relay Module | 20 | * 1 channel relay board * Operating Voltage 5V * Max Current: 20mA * Relay Contact Current Capacity at AC250V: 10A * Relay Contact Current Capacity at DC5V: 10A * One normally closed contact and one normally open contact * Triode drive, increasing relay coil * High impedance controller pin * Pull-down circuit for avoidance of malfunction * Power supply indicator lamp * Control indicator lamp * Indicator for Relay output status * Can Be controlled various appliances & other Equipment with Large current. * Standard TTL Level logic controlled (AVR, Arduino, 8051, PIC, ARM) | |
| 4 | PIR Motion Detector Sensor Module HC-SR501 | 12 | | * Color: White + Green OR White + Blue * Infrared Sensor with Control Circuit Board * The Sensitivity and Holding Time Can be Adjusted * Working Voltage Range: DC 4.5V- 20V * Current Drain: <60uA * Detection Range: <140° * Voltage Output: High/Low level Signal: 3.3V TTL output * Detection Distance: 3 to 7m (can be adjusted) * Delay Time: 5 to 200s (Can be Adjusted, Default 5s +/- 3%) * Blockade time: 2.5s (Default) * Work temperature: -20-+80°C * Dimension: 3.2cm x 2.4cm x 1.8cm (Approx.) |
| 5 | Raspberry Pi PICO | 1 | | * Operating Voltage (VDC): 1.8 ~ 5.5 * Processor: RP2040 (Dual-core Arm Cortex M0+) By Raspberry Pi * Interface: 2 x UART, 2 x I2C, 2 x SPI, up to 16 PWM channels * RAM: 264 KB * GPIO: 26 Pins * Clock Speed: 133 MHz * On Board Ports: Micro-USB 5V/2.5A DC Power Input Port * Operating Temperature Range (C): -20 to 85 * Length (mm): 51, Width (mm): 21, Height (mm): 4 |
| 6 | Raspberry Pi | 1 | | * Model-Raspberry Pi 4 Model-B * Processor- Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz * RAM Memory - 2 GB LPDDR4 SDRAM * 2.4 GHz and 5.0 GHz IEEE 802.11b/g/n/ac wireless LAN, BLE Gigabit Ethernet Bluetooth 5.0 * Operating Power: - * 5 Volt 3 Ampere DC via GPIO Header * 5 Volt 3 Ampere DC via USB Type-C Connector * Power Over Ethernet (PoE)–Enabled (requires separate PoE HAT) * GPIO- (Fully backward compatible with previous boards) |
| 7 | Transmitter and Receiver | 4 | | * Range: 1km |
| 8 | Wireless Connectivity | 1 | | Wi-Fi Module Specifications:   * Model Number: ESP8266 * Colour: Black * Form Factor: All-in-One * Item Weight: 60.0 grams |
| 9 | Server | 1 | | * ThingSpeak: Home License * Number of messages: 33 million/year per unit (~90,000/day per unit) * Message update interval limit: Every second * Number of channels: 10 per unit |

**JUSTIFICATION FOR THE PURCHASE**

**(Applicable only for Non-Recurring Expenditure/ Equipment etc.)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **VGST Programme Title** | | **\*** | | | | |
| **VGST Grant Amount** |  | | **Year** |  | **Instalment No.** |  |

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **List of the Equipment/ Item**  **\* (relevant to carry out the proposed project)** | **Justification for the Purchase**  **(in brief)** |
| **1** | UART Capacitive Fingerprint Sensor | * Biometric fingerprint scanner forms the pivotal part of our automated attendance system. * Capacitive Fingerprint sensors are more accurate and less bulky as compared to optical fingerprint sensors. This is a necessity in our project as it is portable. |
| **2** | Absolute Native Electronics W1209 50~100 digital temperature controller thermostat | * To monitor the room temperature and alter the fan speed accordingly. This preference will also form the base of our intelligent model. |
| **3** | Tolako 5v Relay Module | * Automatically switch ON/OFF the electrical appliances in the classroom based on various external factors. * This is independent of the wiring system in the classroom |
| **4** | PIR Motion Detector Sensor Module HC-SR501 | * To detect the position of the student with respect to the fan/light in order to automatically switch them ON/OFF * The 3 sensors divide the classroom into 6 grids |
| **5** | Microcontroller: Raspberry Pi/ PICO | * To interact with the sensors and all the connected devices in our project architecture * Support network protocols and can also perform some small computations before being sent to the cloud server for analysis |
| **6** | Transmitter and Receiver | * Transfer of data collected by the sensors in order to store for analysis |
| **7** | Wifi Module | * To connect the entire architecture to a single network |

**PROFORMA – B**

**(FOR -2nd Phase/Year)**

**BUDGET ESTIMATE - NON - RECURRING EXPENDITURE (NRE)**

**NRE UNDER K-FIST L1: Procurement through**

**E-Tendering Process - ETP**

(Restricted to 90% of Rs. 10.00 lakhs only, which works out to maximum of Rs.9.00 lakhs) (1 page only)

***(Equipment/Items above Rs.1.00 lakh have to be procured through E-tendering process, which shall have to be entered in NRE - ETP)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Items permitted to be procured only through E-tender process** | **Technical Specification of Equipment** | **Unit Price**  **(Rs.)** | **Total Unit/ Quantity required** | **Total Estimated Cost**  **(Rs. in lakhs)**  **(to be approved by VGST)** |
| **NRE 1** |  | **Provide this information in the concerned page** |  |  |  |
| **NRE 2** |  |  |  |  |
| **NRE 3** |  |  |  |  |
| **NRE 4** |  |  |  |  |
| **NRE 5** |  |  |  |  |
| **NRE 6** |  |  |  |  |
| **NRE - Total Amount** | | | | | **Rs.** |

**PROFORMA – B**

**(FOR -2nd Phase/Year)**

**BUDGET ESTIMATE - NON - RECURRING EXPENDITURE (NRE)**

**NRE UNDER K-FIST L1: Procurement through**

**Manual Tendering Process – MTP**

(Restricted to 90% of Rs. 10.00 lakhs only, which works out to maximum of Rs.9.00 lakhs) (1 page only)

***(Procurement of Equipment’s/ Items below Rs.1.00 lakh only. This is also has to be entered in NRE - MTP)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Items permitted to be procured only through Manual Tender process (Internal Procedure)** | **Technical Specification of Equipment** | **Unit**  **Price**  **(Rs.)** | **Total Unit/ Quantity required** | **Total Estimated Cost**  **(Rs. in lakhs)**  **(to be approved by VGST)** |
| **NRE 1** |  | **Provide this information in the concerned page** |  |  |  |
| **NRE 2** |  |  |  |  |
| **NRE 3** |  |  |  |  |
| **NRE 4** |  |  |  |  |
| **NRE 5** |  |  |  |  |
| **NRE 6** |  |  |  |  |
| **NRE - Total Amount** | | | | | **Rs.** |

**BUDGET ESTIMATE - RECURRING EXPENDITURE (RE)**

**(FOR -2nd Phase/Year)**

(Restricted to 10% of Rs. 10.00 lakhs only, which works out to maximum of Rs. 1.00 lakhs) (1 page only)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPENDITURE TOWARDS (Consumables, Contingency etc.)** | | | | |
| **Sl. No.** | **Items** | **Percentage of Recurring Expenditure allowed by VGST**  **(Item Wise)** | **Recurring Expenditure permitted by VGST** | **Total Estimated Cost**  **(Rs. in lakhs)**  **(to be approved by VGST)** |
| RE 1 | Project Assistant | **APPLIED FOR ONLY CESEM SCHEME** | | |
| RE 2 | Chemicals | Upto 60% | Upto Rs. 60,000/- only |  |
| RE 3 | Glassware |
| RE 4 | Plastic Ware |
| RE 5 | Biological Specimen |
| RE 6 | Electrical & Electronics spare parts | Upto 7.5% | Upto Rs. 7,500/- only |  |
| RE 7 | Mechanical Spare parts | Upto 7.5% | Upto Rs. 7,500/- only |  |
| RE 8 | Contingency | Upto 20.0% | Upto Rs. 20,000/- only |  |
| RE 9 | Books & Journal | Upto 5% | Upto Rs. 5,000/- only |  |
| **TOTAL RECURRING EXPENDITURE** | | **100.0%** | **Rs. 4,00,000/- only** |  |

**TECHNICAL SPECIFICATION OF EQUIPMENT**

**(For Non-Recurring Expenditure only)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of Equipment & Accessories** | **Quantity** | **Details of Technical Specification as indicated/proposed in the e-procurement document** | |
| 1 |  |  |  | |
| 2 |  |  |  | |
| 3 |  |  |  | |
| 4 |  |  | |  |
| 5 |  |  | |  |
| 6 |  |  | |  |
|  |  |  | |  |

**JUSTIFICATION FOR THE PURCHASE**

**(Applicable only for Non-Recurring Expenditure/ Equipment etc.)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **VGST Programme Title** | | **\*** | | | | |
| **VGST Grant Amount** |  | | **Year** |  | **Instalment No.** |  |

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **List of the Equipment/ Item**  **\* (relevant to carry out the proposed project)** | **Justification for the Purchase**  **(in brief)** |
| **1** |  |  |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** |  |  |
|  |  | |

|  |
| --- |
| **Institution/ Programme Co-ordinator shall abide by the following VGST Terms & Conditions:**   * Any deviation from the allocated 80% in Budget Estimate (Non-Recurring) will not be allowed. * Procurement for items above Rs.1.00 lakhs shall be made strictly through E-tendering process using GoK E-portal as per KTTP Act. * Procurement of Equipment either through ETP or Manual Tendering Process (MTP) shall not exceed 80% of the Budget. Items which are less than Rs.1.00 lakh can also be purchased along with other equipment through ETP. * Further change in the Budget Estimate (Both Non-Recurring & Recurring) will not be entertained. * For purchase of Items less than Rs.1.00 lakh, minimum 3 quotations have to be taken and to be purchased for the lowest quote. * The proposal shall include Technical Specification of the Equipment (TSE) and Justification of the Purchase (JPE). This supportive information is most essential for Non-Recurring Budget Estimate (Proposals without TSE & JPE will not be considered for selection). * Any deviation from the allocated 20% in Budget Estimate (Recurring) is strictly not allowed. * Appointment of Project Asst. (RE1) and remuneration is bound by VGST’s Terms & Conditions (Only for CESEM Programme). * The total expenditure towards Sl. No. RE 1 to RE 9 shall not exceed the fixed percentage indicated against each item head.   If items RE 2 to RE 5 are not applicable for the scheme/project, the grant can be utilized for item no. RE 6, RE 7 and RE 9 or for item which are specific to the project. |

|  |  |
| --- | --- |
| **Signature of Principal/Head of Institution**  **(with Seal)** | **Signature of Programme Co-ordinator** |

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Place: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**ANNEXURE -2**

**PURCHASE COMMITTEE**

**(APPLICABLE FOR PROCURING ITEMS INDICATED UNDER NON-RECURRING & RECURRING EXPENDITURES OF VGST APPROVED BUDGET ESTIMATE)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Designation** | **Name** | **Signature** |
| 1 | **Principal/Registrar/Dean** |  |  |
| **Phone:** |
| **Email:** |
| 2 | **VGST**  Programme Co-ordinator |  |  |
| 3 | **Head of the Department**  **(In case, if the Programme Co-ordinator is also functioning as HOD, HOD of any other dept. can be the member of Purchase Committee)** |  |  |
| 4 | **Manager/ Finance Officer/**  **Accounts Officer** |  |  |
| 5 | **Head of the Department**  **(Any other than grantee Dept.)** |  |  |
| * The Constitution/Structure of the Purchase Committee shall be as indicated above. * The purchase committee undertakes the responsibility of procuring only those Equipment/ Items indicated in the “VGST approved Budget Estimate” (both Non-Recurring & Recurring) by strictly adhering to the Guidelines, Terms & Conditions of VGST. (VGST-GTC). * The decision, methodology in procurement of the items shall be recorded in the “Proceedings of the Purchase Committee” ) & shall obtain the signatures of all the members of the purchase committee. * THE PURCHASE COMMITTEE TAKES THE COMPLETE RESPONSIBILITY IN CASE OF ANY ANOMALY/ VIOLATION IS FOUND IN THE PROCUREMENT PROCEDURE. * ANY AUDIT QUERY REGARDING PURCHASE PROCEDURE WILL BE RESPONDED BY THE PURCHASE COMMITTEE. * The Change of Members in the Purchase Committee is not permitted. However, if there is any changes in the members of the Purchase Committee the Programme Co-ordinator/Grantee Institutions should submit Annexure-4 for VGST’s approval. | | | |

**ANNEXURE -3**

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**Government of Karnataka**

**VISION GROUP ON SCIENCE AND TECHNOLOGY**

**Department of Information Technology, Biotechnology and Science & Technology**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PROGRAMME CO-ORDINATOR DECLARATION** | | | | | | | | | |
| 1 | VGST PROGRAMME |  | | | | | | | |
| 2 | Period of the  VGST Programme | One Year |  | | | Two Years |  | Three Years |  |
| 3 | Allocation year |  | | | | | | | |
| 4 | GRD Number |  | | | | | | | |
| 5 | College/ Institution Address |  | | | | | | | |
| 6 | Department |  | | | | | | | |
| 7 | Topic/Title |  | | | | | | | |
| 8 | VGST grant details | Instalment | | |  | | | | |
| Amount | | |  | | | | |
| Cheque no. | | |  | | | | |
| Date | | |  | | | | |
| 9 | Programme  Co-ordinator  details | Name | | |  | | | | |
| Designation | | |  | | | | |
| Contact number | | |  | | | | |
| E-mail | | |  | | | | |
| 1. **I am aware of all instructions and directions indicated in Guidelines, Terms and Conditions (GTC) present in GRD – Book of VGST.** 2. **I undertake to utilize the VGST grant by strictly adhering to the GTC of VGST.** 3. **I undertake the responsibility of purchasing/procuring the equipment only within the VGST approved cost/price.** 4. **If I purchase the equipment more than the VGST approved cost the college management will meet the extra cost.** 5. **In case of my transfer/ retirement/ deputation/ termination/ change of work place from this Grantee Institution, I shall obtain NOC from VGST office by suggesting another responsible & suitable faculty member as Programme Co-ordinator (PC) who belongs to the grantee Dept. of this College/ Institution.** 6. **I will procure the equipment within the allowed cost as approved by VGST in the Budget Estimate (PART - A of GRD).** 7. **I will not procure any equipment which is not approved by VGST. If such procurement of Equipment/Item is made without the VGST’s approval, the Programme Co-ordinator/College Management/ Grantee Institution will bear the cost of the equipment/Item.** 8. **While procuring the equipment, Purchase Committee will follow the procurement procedure as per the KTPP Act 1999 & 2000.** 9. **I will obtain the VGST approval of the Budget Estimate (both Non-recurring & Recurring) indicated in PART-A of GRD only once in a Financial Year (FY) & I will not submit for the revised Budget Estimate. I will submit to VGST the all the necessary Purchase documents (PART-B )within the 4 months period from the date of issue of grant cheque.** | | | | | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **Passport Size photograph of**  **VGST – Programme**  **Co-ordinator**  **(Mandatory)** | | **Signature of Principal/Head of Institution**  **(with Seal)** | **Signature of Programme Co-ordinator** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Name and Signature of the**  **Programme Co-ordinator**  **(with seal)** | | | | | | | | | | |
| **Date:** | | | | **Place:** | | | | | |

**ANNEXURE -4**

**Letter for Collaboration from Reputed Researcher/ Institution/ Organization/ Industry/ Research Lab/ Analytical Lab**

**(Not Mandatory)**

|  |  |  |
| --- | --- | --- |
| 1 | Name of the Institution/ Organization/ Industry/ Research Lab/Analytical Lab |  |
| 2 | Name of the Collaborating Department |  |
| 3 | Name & Designation of the Collaborator |  |
| 4 | Research Topic:-  [as given in CESEM/ CISEE/ RGS-F/  K-FIST (L2)]  (It is not required for K-FIST (L1) Grantee Institution) |  |
| 5 | **Contact Details:-**   1. **Address** |  |
| 1. **Telephone** |  |
| 1. **Mobile** |  |
| 1. **Fax** |  |
| 1. **E-mail** |  |

I am willing to collaborate with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dept. of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ institution for CESEM/ CISEE/ RGS-F/ K-FIST (L2) Programme of VGST and I am agreeing to provide the required assistance in the research related activity to Programme Co-ordinator.

|  |  |
| --- | --- |
| **Signature of Programme Co-ordinator** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Signature of Collaborator**  **(with Seal)**  **;** |

DATE : PLACE :