



## **Product No. 4**

### **Invitation for Expression of Interest (Eoi) for Commercialization of 'Biometric-based Theft Control Device for Motor Bikes'**

#### **1.0 Background**

CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR) has developed a '**Biometric-based Theft Control Device for Motor Bikes**' for application in all motorized two wheelers. The digital electronic security system is a multistage security system which includes a fingerprint scanner and a keypad for authentication, without which the vehicle remains lock. The biometric system allows the owner to enrol two hundred authentic fingerprints and/or a single passcode in system memory, one of which will be required to verify every time the vehicle is to be used. The device is equipped with sophisticated locking devices which blocks fuel passage to the combustion chamber, locks the handle bar, kickstand and includes a tamper resistance circuit with small housing and 125 dB sound pressure siren which activates with slight vibration or tilt in case of towing, forced start-up and jacking up. Block diagram of the device is illustrated in Fig. 1. Tentative technical specification and feature of the device are given below.

#### **2.0 Technical Specification**

- a) Magnetic sensor - driving ability, more than 15 mA, working power supply DC 3.3~5 V
- b) Vibration sensor - driving ability is strong, for more than 15 mA, The working voltage of 3.3 to 5 V
- c) Tilt sensor - operating voltage 3.3 to 5 V DC, ball rolling type of tilt sensor
- d) Finger print scanning sensor ARM cortex M3 core, optical sensor, effective area of the sensor 14×12.5 mm, image size 202×258 pixels, resolution 450 dpi
- e) Embedded microcontroller 5V, 8 analog inputs ports, 14 digital input/ output ports: TX, RX, 6 PWM ports, 1 pairs of TTL level serial transceiver ports
- f) LCD display module with blue backlight, size: 16×2, operate with 5V DC.

#### **3.0 Feature of the Developed Device**

- a) Fingerprint identification
- b) Password-code verification
- c) Blocks fuel passage to the combustion chamber

- d) Locks the handle bar/ kickstand/ wheels
- e) Tamper resistance circuit
- f) Magnetic sensor which shields the gas tank and luggage trunk.
- g) Vibration and tilt sensor.

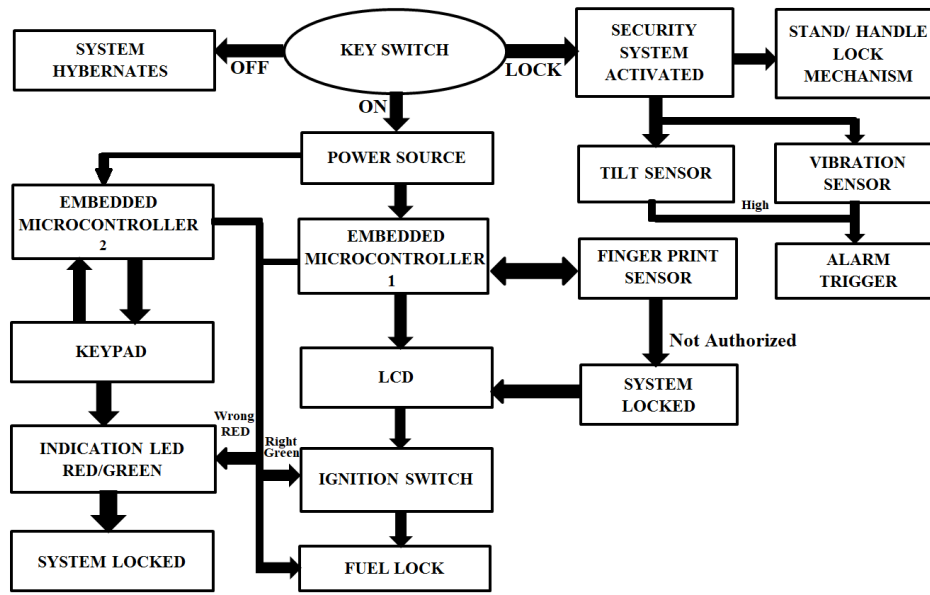


Fig. 1: Block diagram of the device

#### 4.0 Requirement

CSIR-CIMFR requires an industry partner for manufacturing and commercialization of '**Biometric-based Theft Control Device for Motor Bikes**'. Therefore, Expression of Interest (EoI) is invited from the firms for fabrication and commercialization of the device.

#### 5.0 Eligibility Criteria

- (i) The firm should be engaged in manufacturing/selling electronics and instrumentation products.
- (ii) Turnover of the company should be minimum of Rs. 20.00 lakhs during the last financial year..

#### 6.0 Terms and Conditions

- (i) The selected firm shall have to sign a licensing agreement which shall be finalized on mutually agreed terms and conditions based on the CSIR guidelines and shall be signed before the commencement of the project.



- (ii) A lump sum licensing fee needs to be paid by the selected firm before signing the licensing agreement for commercialization of the system. Minimum lump sum premium shall be Rs. 5.00 lakh.
- (iii) Royalty rate to be paid by the selected firm based on percentage of selling price (excluding taxes) of the system during commercialization period. It should be minimum of 3%.
- (iv) Fabrication of first set of the device should be completed within 6 (six) months from the date of signing the agreement.
- (v) Licensing agreement would be valid for 5 years and which may be renewed based on mutual consent.
- (vi) The technically qualified firm offering maximum lump sum premium and royalty will be selected for licensing agreement.

## **7.0 Expression of Interest**

The interested firm should submit their EoI in two bids (Technical and Financial Bids) separately with all necessary information and documents.

- (i) The bid prepared by the firm as well as all correspondence and documents relating to the bid exchanged by the technical partner shall be written in English language only. The bidder shall bear all costs of translation, if any, to the English language and all risks of the accuracy of such translation, for documents provided by the technical partner.
- (ii) The firm shall have to submit the documentary evidences to support the eligibility criteria mentioned from point 5.0 sl. (i) to (ii).
- (iii) The firm should also furnish the detailed documents of legal name & address, year of registration, PAN/TIN/GST details and financial standing (audited balanced sheet report & Income Tax).
- (iv) CSIR-CIMFR requires that the firm should observe the highest standard of ethics during execution of such contracts.
- (v) The last date & time for receipt of proposal is 31.05.2018 at 5:00 PM (IST).

## **8.0 Submission of EoI**

The interested firms should submit their EoI to:

The Head, BDIL,  
CSIR-Central Institute of Mining and Fuel Research,  
Barwa Road, Dhanbad – 826015  
Jharkhand, India