Expression of Interest for RFQ and MOU with CTTC Kolkata for the Joint development of 1 year Certificate Course on Industry 4.0(with IIOT& AI &ML& Data Analytics& cyber security interoperability in various industry ready platforms) for our aspiring student. The Criteria for participation in EOI for RFQ is as under

- 1. Interested companies should have not less than 20-25 developers at single premise
- 2. Experience in IOT platforms should be at least more than 10 years.
- 3. Should have proven credential in developing IOT based devices for banking sector, government sector, corporate sector for at least over 10 years.
- 4. Should have support office across India.
- 5. Previous work exposure with government or PSUs for high security projects will be given preference.
- 6. Previous work exposure with high end corporate clients in IOT domain will be given preference.
- 7. Last 5years audited annual accounts may be submitted and turnover of firm should not be less than 2.5Cr.
- 8. Interested parties may mail RFQ(With all relevant documents in support of their candidature) in Word/pdf format to the following email IDs addressed to the General Manager CTTC Kolkata, not later than 23<sup>rd</sup> January,2024.

<u>debdutta.guha@msmetoolroomkolkata.com</u> and <u>cttc-msme@gov.in</u> also hard copies of the same may be sent by post to the following address-CTTC Kolkata

Bonhooghly Indstrial area, Kolkata-700108.

The envelope should be addressed to General Manager CTTC Kolkata & superscribed in bold as "RFQ for joint project venture on IOT as per EOI of CTTC Kolkata".

The Documents should reach CTTC Kolkata latest by 25<sup>th</sup> January,2024(Applications received after this date may not be considered).

## THE SCOPE OF THE PROJECT AS PER EOI

## To develop a 1year certificate course on IIOT & Industry4.0 & Data analytics & computing & AI & ML

- 1. IOT based Industrial Training on Industry 4.0
- 2. Development & Design of IOT based devices for Banking Sector, government 7 corporate sector & upcoming areas like EV
- 3. Al Based Courseware development
- 4. Arduino, Raspberry pi, Microcontroller integration with AI & IOT
- 5. IOT Communication protocols MQTT, CoAP, HTTP & others, detailed module development
- 6. Wireless standards like Wi-Fi, Bluetooth, Zigbee, LORA, & data cellular networking
- 7. Programming module development for embedded system using C, C++, Python
- 8. Firmware Development from decision level for IOT devices for Industry & Office automation
- 9. Syllabus of courseware and module development with IOT platforms to facilitate device management, data storage & analytics (AWS IOT, Google Cloud IOT)
- 10.IOT protocol & Security principles
- 11.Implementation(design) of secure communication & device authentication
- 12. Big data handling/processing from data generated From IOT devices.
- 13.IOT based data extraction & analysis
- 14. Rapid prototyping of IOT solution
- 15.Interoperability standard to ensure seamless communication between different IOT Platforms
- 16. Integration of AI & ML algorithm for intelligent decision making in IOT applications
- 17. Awareness of regulation & standards relevant to IOT ensuring compliance to privacy & security
- 18. Cyber Security & encryption
- 19. Al based PLC and DCS Integration
- 20. Al Integration with manufacturing/Industrial Robotics
- 21.OJT in smart industries