Proposal for Real Time, Display Panel based, Efficiency Monitoring System for Industrial Grinding Operation Machines

To

Confetti India Pvt Ltd
S-44, South Side G.T Rd, Industrial Area,
Bulandshahr Road Industrial Area,
Ghaziabad, Uttar Pradesh 201009

From

ABES Engineering College,
a unit of Society for Educational Excellence,
a society duly established under the laws of India,
having its registered office at 80, Navyug Market, Ghaziabad 201003

ABES Engineering College shall hereinafter be referred to as "**ABESEC**" and **Confetti India Pvt Ltd**

shall hereinafter be referred to as "**COMPANY**" and, collectively, as the "Parties".

1 SCOPE OF PROPOSAL

COMPANY and ABESEC shall work jointly to carry out the applied research project(s) in the agreed area for developing and providing solution as stated below for the given scope of collaboration.

SCOPE OF COLLABORATION

The parties agree to collaborate in the required consultancy solution as mentioned below on an applied research project basis:

"Proposal for Real Time, Display Panel based, Efficiency Monitoring System for Industrial Grinding Operation Machines"

The scope of work is separately covered below.

This research project is undertaken by ABESEC as an academic institute to support the industry at a nominal cost, and the COMPANY has extended the opportunity to institute in the spirit of supporting academic institutes come forward and participate in industrial problem solving.

2 ACTIVITIES AND OBLIGATIONS OF COMPANY

- COMPANY shall be responsible for providing access to its plant for which project is being undertaken to ensure both, a smooth flow of information during design face and also smooth implementation of project.
- COMPANY will provide company know-how, which may be deemed necessary for the project.
- COMPANY shall take reasonable steps to prevent ABESEC know-how, which are meant only for the purpose of conducting the Research Projects, from unauthorised usage or falling into unauthorised hands.

3 ACTIVITIES AND OBLIGATIONS OF ABESEC

- ABESEC shall strive to complete the activities in the project and deliver the solution to COMPANY as per the project objectives and schedules.
- ABESEC shall take reasonable steps to prevent COMPANY know-how, which are meant only for the purpose of conducting the Research Project, from unauthorised usage or falling into unauthorised hands.

4 FINANCIAL ARRANGEMENTS

The company will pay a consideration to ABESEC in alignment with the commercial (pricing) portion of this proposal detailed below.

5 ASSIGNMENT

The Parties hereto shall not transfer or assign any of their rights and obligations under this proposal to any other party without obtaining prior consent in writing from other Parties hereto.

6 TERM / DURATION

This proposal shall be valid for a period 15 days.

7 ARBITRATION, APPLICABLE LAW AND JURISDICTION

- Any disputes between the parties shall be resolved by mutual discussions. Unresolved disputes, if any, shall be subject to resolution by a panel formed by the signing authorities to this proposal from either side or personal nominated by them in writing, for the project concerned. If the dispute cannot be resolved by the said panel, the matter shall be resolved by arbitration in accordance with the Arbitration and Conciliation Act, 1996. The venue of arbitration shall be Ghaziabad, Uttar Pradesh. The decision of the arbitrator shall be binding on both parties
- ABESEC will retain all the rights, whatsoever, including IPR on the solution.
- This proposal shall be governed by the Laws of India and subject to the jurisdiction of Courts in Ghaziabad, Uttar Pradesh.

8 GENERAL

- The headings of various clauses herein are inserted for convenience of reference and are not deemed to affect the meaning or construction of relative provisions.
- The obligation under this proposal on ABESEC is limited to the commercial value of the research project as mentioned in commercial (pricing) portion detailed below.
- The scope of work under this proposal will be based on the **Scope of Work of this proposal** detailed below.

9 FORCE MAJEURE

Neither party shall be held responsible for non-fulfillment of their respective obligations under this Agreement due to the exigency of one or more of the force majeure events such as but not limited to acts of God, War, Flood, Earthquakes, Strikes not confined to the premises of the party, Lockouts beyond the control of the party claiming force majeure, Epidemics, Riots, Civil Commotions etc. provided on the occurrence and cessation of any such event the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action.

IN WITNESS WHEREOF, the Parties hereto have set and subscribed their respect; hands and seal on the day, month and year first herein above mentioned.

This Agreement has been signed by the Parties in two (2) identical copies, of which each Party has taken one.

GLB. 02.03.2020	Ghaziabad - 02/03/2020
Place and date	Place and date
Confetti India Pvt Ltd	**ABES Engineering College**
By	By
Bhoodhan Chandra.	SACHIN KUMAR GOEL
Name	Name
MD	V.P.
Title	Title

ABES Engineering College Ghaziabad

Annexure 1

Objective of Project

Real Time, Display Panel based, Efficiency Monitoring System for Industrial Grinding Operation Machines.

The objective of the project is to design and develop an automated system that will identify and display in real time, instants when grinding operation gets out of range(range as defined by client and mentioned in this document below) and record such incident for future analysis.

Scope of work

S.no	Tab name	Tab description	Example
1	Job loading	Counter based value to be displayed on the LED screen indicating the time. Variable set points provision should be there. After set point alarm should be triggered and the entry should be registered under the operator's name.	When the operator set this mode then a timer of 1 hour starts on the led screen and after the time ends an alarm is triggered for excessive time consumption therefore registering this moment in a hard drive.
2	Job cutting	Amp based values are required on the LED screen. The optimal amperes are 17-20 amp. Trigging an alarm when the values go above or below the set points. Showing a trend of 2 hour at an interval of 10 minutes with the values of amp. And on the top of the screen Client name in capitals to be displayed, either static or floating.	
3	Job matching	Amp based values are required on the LED screen. The optimal amperes are 10-15 amp. Trigging an alarm when the values go above or below the set points. Showing a trend of 2 hour at an interval of 10 minutes with the values of amp. And on the top of the screen Client name in capitals to be displayed, either static or floating.	

4	Job finishing	Amp based values are required on the LED screen. The optimal amperes are 8-12 amp. Trigging an alarm when the values go above or below the set points. Showing a trend of 2 hour at an interval of 10 minutes with the values of amp. And on the top of the screen Client name in capitals to be displayed, either static or floating.	
5	Job inspection ready	A flashing sign of INSPECTION READY to be displayed on the LED in place of the clients name and a SMS via Wi-Fi or whatsapp via Wi-Fi to be send on the numbers of inspectors.	Before stopping the Machine to a halt the operator has to press this tab so that the people who are responsible for inspection are to be notified and they have to be present at the machine in the give time frame for Example 15 minutes.
6	Job packing	Counter based value to be displayed on the LED screen indicating the time. Variable set points provision should be there. After set point alarm should be triggered and the entry should be registered under the operator's name.	

Physical Specification	
*Size of LED Display Panel (l x b x h)	960mm x 80mm x 320mm
Electronics Panel Box (l x b x h)	450mm x 200mm x 600mm

- LED Display assemble in given panel size , individual panel size come **320mm wide by 160mm tall**

Technical Specification	
Display system	LED Segment
Locally Data storage	Yes (pen drive)
Remotely Data log file	Web portal
Data input	HMI, Based on Button input from a control panel system. (one for each machine)
Machine operation indicator	LED Tower Light (one for each machine)
Operation contingency	Alarm (one for each machine)
Panel Operating Voltage (DC)	12 V
Panel Operating Power	30W

Commercials involved

Following is a brief and tentative statement of expenses that is expected to be incurred for the design and development of the project. The time lines and deliverable will be shared as soon as the budget gets approved.

****Hardware cost (Single Display Panel based Monitoring System):**

Sr. No.	Head	Amount (Rs.)	Comments
1.	Display System	5500	LED Segment, panel
2.	Metal Panel Frame	3000	Machined structure. Bending sheet
3.	Electronics	29000	Micro controller based control system + HMI +counter + storage + SMPS + Wi-Fi +Electrical and Electronics Control
4.	PCB plate Manufacturing	3000	Printed from out side
5.	**Sub-total**	40500*	

****Hardware cost = the above mentioned cost x number of Display panel based monitoring systems required in the project.**

*****Firmware cost**

Sr. No.	Head	Amount (INR)
1.	Electronics Designing and Simulation (30 hours @ 600 per hour)	18000
2.	Firmware(89hrs @600 per hour)	53400
3.	Assembly and testing (10hours @ 600 per hour)	6000
4.	Sub-total	77400*

*****Firmware cost is independent of the no of machines. It is single time cost.**
* Tentative cost. It will vary as per the finalized design.

Total expenses for a single machine

Sr. No.	Head	Amount (INR)
1.	Expenses on Material for 4 machine	162000
2.	Expenses on Design and Testing	77400
3.	Total	239400

Discount Given = 19,400/-

Net Price after discount = 2, 20,000/-

Terms and Conditions:

The project will be governed by the following terms and conditions:

1. 50% of the total project amount to be paid in advance before the planned date of start of the project.
2. 50% of the total amount to be paid at the time of final delivery of the machine.
3. Dimensions are subjected to vary as per the final design.
4. The machine has to be picked from the ABES-EC premises and the transportation cost is to be borne by the client.
5. All taxes as applicable will be charge extra.
6. Quotation is valid for 15 days from date mention on quote.
7. Any change in design post order confirmation will be charged extra based on additional cost incurred.

Flow Diagram: