# **BHARAT BIOTECH**

Hyderabad, India







LEAD INNOVATION IN BIOTECHNOLOGY

#### **About Bharat Biotech**

Bharat Biotech is a pioneering biotechnology company known for its world-class R&D and manufacturing capabilities. Our mission is to deliver affordable, safe and high-quality vaccines and bio-therapeutics that help people prevail over diseases. We seek to lead innovation in biotechnology in order to lead the fight against disease with a focus on emerging markets.

At Bharat, we seek to lead innovation in biotechnology in order to lead the fight against disease. We have a rich history of developing breakthrough vaccines and biotherapeutics to protect people against diseases. Our primary focus is on the neglected region-specific diseases of the developing world. Over 114 multidisciplinary scientists—the best and the brightest in their respective areas—work collaboratively at our research and development (R&D) facilities.



innovative vaccines and therapeutics include Typbar TCV—the world's first Typhoid Conjugate Vaccine, REGEN-D®—a growth factor gel to treat diabetic foot ulcers developed using recombinant technology, and HIMAX®—a patented technology, which enabled the production of Revac-B mcf®. This first-ever recombinant Hepatitis B vaccine is known for driving highest levels of antigenic recovery compared to other vaccines in its class.

### **ICONICS Software Deployed**

ICONICS's GENESIS64 software suite enable rapid and safe production of the vaccines for the Global market in Bharat Biotech's WHO-approved filing and packaging facility in Hyderabad, India. Hyper Historian, WebHMI™, AlarmWorX™64 and ICONICS OPC Data Collector combine to create the solution bridging the gap between industrial automation and the Biotechnology field.



A Bharat Biotech Employee Testing Vaccine

#### **Key Features**

Packaging facility and manufacturing unit is located in Hyderabad, Bharat Biotech we have achieve best form of data management. Specifically, Bharat Biotech must adhere to the 21 CFR Part 11, which outlines the controls necessary for the regulated industry to utilize electronic records. Bharat Biotech requires a system where production data can be logged reliably and stored safely. Audits, system validations, audit trails, and documentation of electronic data are subject to inspection for 10 years following production date. ICONICS' GENESIS64 data and historian applications are designed with these industry-standard regulations in mind.



Bharat Biotech BMS monitoring

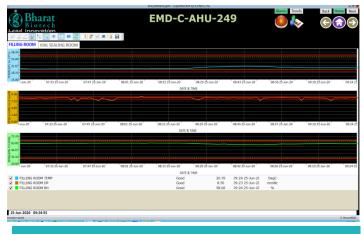
## Summary

For the past 10 years, ICONICS, in collaboration with System Integrator has provided Bharat Biotech with an EMS and BMS solution for their Monitoring facility in Hyderabad. Facilitates enterprise-wide data collection, logging, charting, reporting and analysis. A Data Collector OPC Server stores collected information from proximity sensors, such as Temperature, RH and DP in facility rooms. AlarmWorX64 improves Bharat Biotech's ability to identify, quickly respond to and to document abnormal conditions throughout the monitoring process. Internet connectivity is provided to GENESIS64 applications securely through WebHMI. AlarmWorXMMX64 use to notify abnormalities of condition through a SMS for cold storage equipment's respective of with to Roles department.

In total there are 2 servers, running Windows Server 2012 R2, SQL Server 2012 R2, Hyper Historian database with the ICONICS software and Kepware OPC servers. That is a total of 64 users who can use the system simultaneously through WebHMI.



BMS System



GENESIS64 Recording Data for Bharat Biotech

#### Conclusion

Bharat Biotech and Iconics have been benefitted from a long lasting relationship and currently play integral role on a global environment where Bharat Biotech is successfully delivering its vaccine across the global. During this Covid 19 Pandemic Bharat biotech with support of Iconics is starting to SCADA develop for labs and production to help analysis and visualize the inside condition.

ICONICS industrial automation solution making for a healthier world and also preventing data integrity issue with 21 CFR.

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