

## INDUSTRIAL IOT SCADA SYSTEM FOR CRANE

Prachi Dhongde, Aditi Rane, Gaurav Gawande, Pruthviraj Chavhan, Priyanka Borkar, Prof. Rajendra Bhombe

Final Year student, Department of Electrical Engineering, GNIET, Nagpur, Maharashtra, India

“Professor, Department of Electrical Engineering, GNIET, Nagpur, Maharashtra, India

**Abstract:-** SCADA is the acronym for "Supervisory Control And Data Acquisition." SCADA systems are widely used in industry for supervisory control and data acquisition of industrial processes. Conventional SCADA systems use PC, notebook, thin client, and PDA as a client. In this paper, a Java-enabled mobile phone has been used as a client in a sample SCADA application in order to display and supervise the position of a sample prototype crane. The paper presents an actual implementation of the on-line controlling of the prototype crane via mobile phone. The wireless communication between the mobile phone and the SCADA server is performed by means of a base station via general packet radio service (GPRS) and wireless application protocol (WAP). Test results have indicated that the mobile phone based SCADA integration using the GPRS or WAP transfer scheme could enhance the performance of the crane in a day without causing an increase in the response times of SCADA functions. The operator can visualize and modify the plant parameters using his mobile phone, without reaching the site. In this way maintenance costs are reduced and productivity is increased.

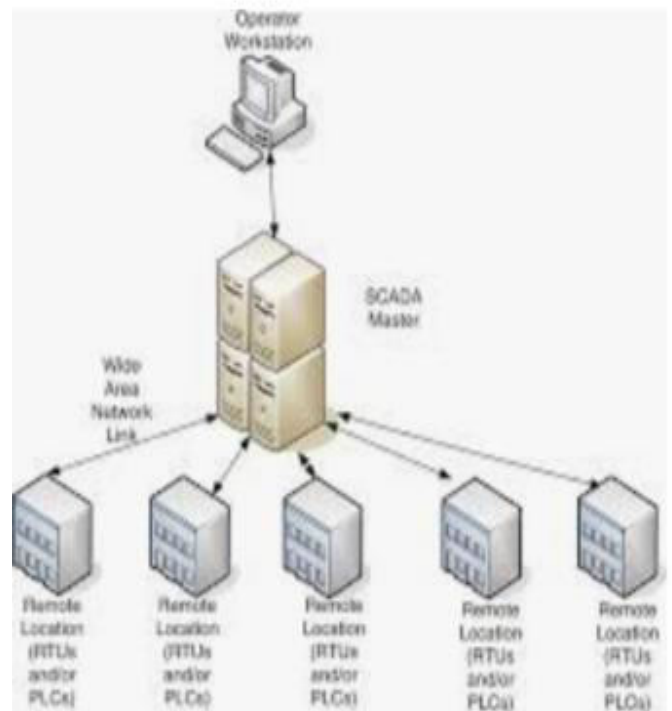
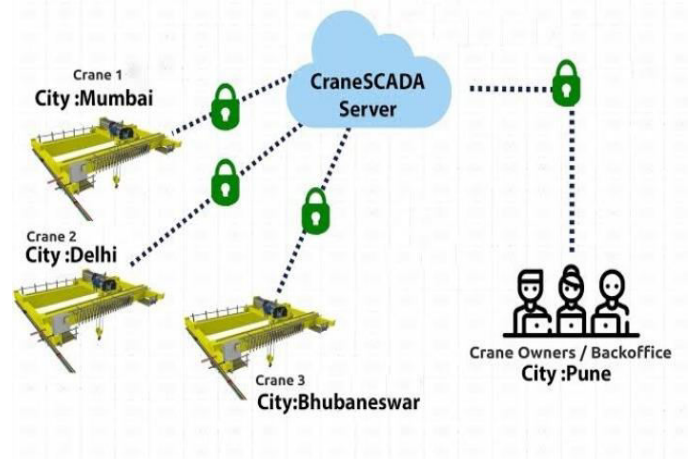
**Introduction:-** CraneSCADA is an Industrial IOT platform which connects all your legacy and new industrial equipment with each other and collects, stores and analyzes their data with cloud computing for you to take intelligent actions and remotely monitor your devices. This helps in significantly minimizing downtime and being aware of your equipment at all times. CraneSCADA is a crane automation & crane monitoring system.

Crane Preventive and Predictive maintenance, monitoring Safety Alerts, Operational Efficiency and crane movement tracking is essential for keeping your heavy material handling equipment's like cranes in top operating condition. Doing this helps achieve high productivity with low maintenance cost and improved safety from complex machinery like cranes, they need to be continuously administered by crane manufacturers or crane users. Remote crane monitoring system ensures continuous supervision and advanced data analytics of operations, wear and tear, fault detection, *analysis and alerts*.

Remote Crane Monitoring Solution is a comprehensive IOT Crane solution which includes cloud data analytics and mobile application along with a hardware sensors which can be easily integrated or retrofit on indoor heavy material handling cranes such as EOT cranes, Double grider and single grider cranes, gantry cranes, bridge crane, JIB cranes, HOT cranes or outdoor mobile cranes such as tower crane, mobile cranes, telescopic cranes, container cranes etc .

**Approximate cost of project: -** Rs. 20,000/-

**Application of Project: -** IOT cranes are electric overhead cranes used in all industrial factories all over the world. They are used to lift materials within a factory from point a to point.



### Literature Review

Author Name, " Title", Internal Journal/ Conference-----, Year of publication, Volume, Issue, page No., ISSN No.

Ex:

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2. M. Jain, M. Daniele, and P.K. Jain, "A Bidirectional DC-DC Converter Topology for Low Power Applications," IEEE Trans. Power Electron., Vol. 15, No.4, pp. 49-54, Jul. 2000.
3. D. Xu, C. Zhao, and H. Fan, "A PWM plus Phase-shift Control Bidirectional DC-DC Converter," IEEE Trans. Power Electron, Vol.19, No.3, pp. 666-675, May 2004.
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## CONCLUSION

An attempt has been made to make a practical model of ' Industrial Iot Scada system for crane is overcome fault and improve factories production is save time and money.

Improved equipment safety, productivity, reduction in spares & improve crane lifecycle value.

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