

3. Method for Acquiring Vital Sign Data at Construction Sites - Utilizing Vital Sign Data to Reduce Human Error -

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Fatigue and heat contribute to human error at construction sites. The use of vital sign data is thought to be effective in preventing such errors. This paper proposes a method for acquiring vital sign data at construction sites by examining two aspects: a method for acquiring vital sign data and handling of personal information based on legal perspectives, and the devising of a simple and continuous method for acquiring vital sign data that can be applied at construction sites and its application on site.

We began by creating a checklist that would help address various legal requirements, including requirements related to the protection of personal information. We then gathered vital sign data using a questionnaire-style survey in which workers input their physical condition, including subjective data, using a tablet before and after work. This method was simple and ensured continuity, confirming its applicability for construction sites. A data input rate of 91.5% was observed, thus confirming continuity. However, as the data was insufficient and had wide variability, further data accumulation is necessary.

As a result of this research, a checklist for collecting and utilizing vital sign data and a simple and continuous method for managing health at construction sites were established.

Keywords: vital sign data, human error, subjective data, heatstroke