

Climate Based Work Safety for Construction Sites and Tower Cranes

Climate-dependent, efficient operability.
Sustainability and profitability.

The day-to-day operability is not always controllable for the construction industry, since they work outdoors. Especially non-human factors such as weather events, cause serious disruption of the work. At the same time, vehicles that can be dangerous if not used safely, such as tower cranes, pose a danger in severe weather events. For this reason, it is crucial in terms of safety to examine the weather events that may occur at the construction sites.



Tower crane accident caused by strong wind in Mecca, Source: Reuters

Since climate is based on long-term analysis of meteorological variables, it is an important information to show what kind of atmospheric event it may encounter seasonally in the region. This can give an overview of the workability status during the year.

What Can We Do for You?

We estimate the situations in which meteorological variables can hinder your work to increase efficiency in your business life within your criteria and goals. As a result of our preliminary research for the construction site, making analytical and numerical calculations that using advanced mathematics, statistical analyzes and state-of-the-art machine learning algorithms, we present a report of your daily workability status for the region you want. In our analysis, we calculate **the occurrence of events for fog, high wind speed** at height of the tower crane, **low temperature** at ground level, **probability of thunderstorm** and **the occurrence of events for all precipitation types (rain, hail, snow, etc.)** by using long term climate data. We are here to provide you with ideal solutions with such comprehensive works.

We have the experience of quickly evaluating computing capabilities and concepts that allow you to clearly see the effects of different options when making calculation decisions. We are at your service as an independent consultant to reach the best information.



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*Alkazar,
to be your the most
valuable partner...*

We Discover Innovations

We always renew ourselves to use the state-of-the-art technology in the best way. We do not stop looking for knowledge to make our analysis better every day.

We Create Opportunities

With the knowledge we obtain from our analysis, we provide you to more productive business life.

We Resist Difficulty

As a result of complex calculations to be made for the region where the construction site, we present you the best data.

We Meet Your Expectations

We try to get you to the most accurate results by analyzing each parameter from the beginning of the work.

We will help you with the following and more questions.

- What is the monthly workability status?
- What is the daily workability?
- What kind of meteorological event can be observed at which hour?
- Which meteorological phenomenon is more common?

How We Work?

Depending on the detailed preliminary research that we have done for the study area, we can change the meteorological variables that are used, according to your wishes and the needs of the region and optimize them for your construction site.

In our research, we analyze the weather events observed and the frequency of their occurrence, in addition to the general climate of the region where the construction is or will be. Accordingly, we compare climate model outputs with observational data and include them in our calculations in the most accurate way.

Through the information we obtain from our analysis of the research result, we calculate the most ideal critical values for severe weather events in the region. Based on these values, we make time series analyzes and select the most appropriate statistical analysis test for each variable.

We are working with all our strength to provide you the most special and accurate results for your construction site with the best information in this direction.

		January												
Day	Hours													
	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	
1	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	
3	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	
4	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	
5	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	
6	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	

Hourly sample output format of non-workable days