

## Reviewer D:

We would like to thank the Reviewer for his/her valuable comments. We addressed all of them below and we accordingly modified the manuscripts. Changes are highlighted in red.

### Remarks:

- Figure 5 is unclear, the schemes are the same

Figure 5 shows the availability and reliability simulations schemes for both the seasonal working periods we took into account (i.e., winter and summer). The schemes in themselves are the same indeed, because simulations were carried out by following the same methodology. What actually changes is the temperatures of each simulation. For the winter working period 5°C, 10°C and 15°C were respectively considered. On the other hand, for the summer working period 20°C, 25°C and 30°C were in turn tested. Such temperatures were selected since they are usually experienced in the application scenario throughout the two seasonal working periods. Finally, the temperatures are clearly reported within the picture just under the green blocks: this is the fundamental discriminant which gives meaning to Figure 5.

- please describe better the graphs plotted in fig 6

The graphs of Figure 6 have been described with more detail in Section 5.

- To upgrade the literature survey and to look also into the IEEE Transactions on Instrumentation and Measurements.

Some related works were added. However, not all of them were published within the IEEE Transactions on Instrumentation and Measurement due to a lack of related papers coming from such a journal.

- There are also a few typos and minor English errors scattered throughout the paper.

We carefully proofread the manuscript. For the sake of ease of reading, we avoided highlighting in red all of the minor modifications.

## Reviewer E:

We would like to thank the Reviewer for his/her valuable comments. We addressed all of them below and we accordingly modified the manuscripts. Changes are highlighted in blue.

The paper is meant to assess reliability and availability of a remote video monitoring system to be employed offshore. Some simulations and experimental tests in a climatic chamber are carried out considering different scenarios in terms of temperature and relative humidity.

The paper is generally clear and well written and it is this Reviewer's opinion that it fits with the scope of the journal.

There are a couple of remarks that Authors could address, to improve the paper quality.

1) A little is said concerning the power supply system; it would be interesting to clarify the on-state and quiescent system power, and to better discuss on the photovoltaic system and backup battery design.

The power supply system is only composed of off-the-shelf components. Such a decision was made in order to develop the prototype as soon as possible to test its effectiveness. The core of the power supply system is the solar charge controller. It is responsible for correctly powering up the control and communications block and the camera in function of both the battery charge level and the power coming from the photovoltaic panels. Indeed, whenever the panels are exposed to enough sunlight, the solar charge controller manages the harvested energy for running the whole system as well as for recharging the backup battery. On the contrary, whenever the harvested energy is scant (e.g., during the night), the solar charge controller draws energy from the battery in order to supply the system. We also added these comments in the manuscript.

2) It is not easy to read the MTBF value in the table of figure 4; a 3-digit separator or some exponential notation of numbers would help a lot.

The table in Figure 4 has been reformulated and the separators have been added.