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## Structural Health Monitoring Systems in Difficult Environments—Offshore Wind Turbines

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The paper discusses the design and capability of Structural Health Monitoring Systems (SHMS) deployed on Offshore Wind Turbines together with the management of the tasks and risks in the offshore environment. The application of SHMS in difficult environments is a particularly challenging task, where ease of installation, ruggedness and reliability of equipment is essential in providing the key information of the structural integrity of Offshore Wind Turbine Towers. This information is required to evaluate the structural response, status and remaining operational life of the structure. The installation and commissioning of such systems have a significant focus on safety and access to the structures where onsite retrofitting of sensors and instrumentation are carried out in the field. Experience has been gained during the installation and commissioning of over 30 systems that have been deployed in the field in the UK offshore sector over the last two year period.

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**Ключевые слова:**

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