

## ***PHM in functionally safe mechatronic systems***

Systems for use in extreme environmental conditions are often characterized by the fact that maintenance is very costly or not possible. Examples of this can be found in the deep sea or in space travel. One way of dealing with ageing systems is the effective and wear-optimized use of the remaining service life of installed components. To this end, stochastic methods are used to develop simulative estimates of failure probabilities and possible usage scenarios.

### **We offer:**

- Theses (Bachelor or Master) and research masters (MSD) with subject-specific supervision
- Flexible working hours and independent work
- Practical experience in the field of applied Research
- Young and motivated team

### **Your profile:**

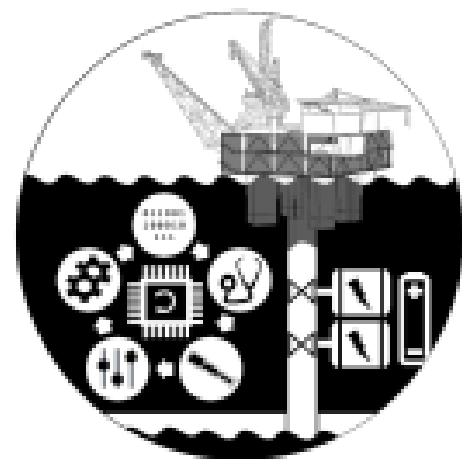
- Degree in mechatronics, electrical engineering, computer science or similar degree programs / relevant work experience
- Knowledge in embedded systems programming
- Passionate to learn, highly motivated, responsible, independent

### **Your tasks:**

- Independent development of innovative solution approaches for current functional safety problems based on literature.
- Testing and implementing existing concepts for evaluating system health.
- Research and development of new diagnostic concepts based on an existing distributed mechatronic system.
- Modification of existing demonstrators or construction of new tests to verify the diagnostic and health concepts developed.



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### **Cooperation partners:**



**Advanced**  
Mechatronics



**NTNU**

Norwegian University of  
Science and Technology

