



# **PAHMIR - Preventive Aircraft Health Monitoring for Integrated Reconfiguration**

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### **PAHMIR**

# Reconfiguration, Error Detection and Diagnostic **Systems for the Aircraft Cabin and Cabin Systems**

- PAHMIR is a joint research project
- The duration is 3 years
- The research grant was given to the university on 01.01.2008.





#### **Content**

This research project consists of two topics in the area of aircraft cabins and cabin systems that are strongly related to one another: a) the reconfiguration of cabins, cabin modules and components b) error detection and diagnostic systems for preventive maintenance of cabin systems.

Both technologies are enabled today due to the availability of small, powerful and inexpensive sensors that can be used

- a) to automatically identify and manage different cabin configurations and
- b) to build error detection and diagnostic systems also economical for smaller (less expensive) components in cabin systems.





### **HAW-Task**

The tasks of the Hamburg University of Applied Sciences in the research cooperation with Airbus are:

- 1.) basic studies based on in-service data,
- 2.) general research on cabin reconfigurations and
- 3.) the development of a demonstrator of an error detection and diagnostic system that has to be installed into the Maintenance Technology Test Center (MTTC) (see picture) at Airbus, Hamburg.







### **MTTC**









### **Aim**

- a) increase airline revenues through cabin reconfiguration and
- b) decrease maintenance costs through preventive maintenance enabled by employing error detection and diagnostic systems.



### **Partners**

- Airbus Deutschland GmbH, Hamburg, department "Maintainability, Reliability and Testability" - project leader
- Hamburg University of Applied Sciences (Hochschule für Angewandte Wissenschaften Hamburg - HAW),
  Aero - Aircraft Design and Systems Group
- Philotech GmbH.



## **Finances**

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the <u>Projektträger Luftfahrtforschung und -technologie</u>, <u>DLR</u> for the BWA and

the <u>Hamburg Innovation GmbH</u> for the HAW. The position of a researcher in full time employment is currently still open.





# **Employees**

The position of a researcher in full time employment is currently still open.