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## Automation in the Aviation Industry

Dr. Dirk Niermann, Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, CFK Nord, Stade

Date: Thursday 25 October 2018, 18:00

Location: HAW Hamburg,  
Berliner Tor 5 (Neubau), Hörsaal 01.11

Lecture in English if requested

Lecture followed by discussion  
No registration required !  
Entry free !

A challenge for the production of aircraft is the machining and assembly of components of very differing size, ranging from just a few millimetres to 20 meters or longer. The dimensional stability of large components presents a further challenge. On the other hand, the load-bearing structures of aircraft naturally have very small tolerances. Permissible deviations from the design optimum are often just  $\pm 0.2\text{mm}$ , and sometimes even less. Automation solutions have to master these requirements by adapting continuously and with great precision to components with low shape accuracy, changing production procedures, and human work tasks. Relevant technologies as well as exemplary applications are shown in the presentation.



Since 2008 Dr. Dirk Niermann has been head of the department for Automation and Production Technology of the Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM at the research centre CFK NORD in Stade. From 1997 to 2007 he was deputy-director of the Center of Adhesive Bonding Technology at Fraunhofer IFAM in Bremen and responsible for research, training and new technologies application in industry. Dr. Niermann holds a Ph.D. in Chemistry from Bielefeld University.

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