JOHANNES KEPLER
UNIVERSITÄT LINZ
Netzwerk für Forschung, Lehre und Praxis

Institut für Wissensbasierte Mathematische Systeme
Fuzzy Logic Laboratorium

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PhD-Position
'Fault Detection and Diagnosis
with Data-Driven Process Models'

The 'Department of Knowledge-based Mathematical Systems' at the Johannes Kepler University Linz is offering **a PhD position in the field of fault detection and diagnosis with data-driven process models based on system identification, soft computing and machine learning techniques.**

The basic task is to enhance the currently available techniques with **new (data-driven) learning algorithms for process models** (with improved predictive quality) and an **advanced generation and analysis of fault indicators** in order to detect various type of faults as early as possible and furthermore to significantly improve the quality of machines and products.

The models should be developed for a **range of processes from industry**, where **measurement data with various characteristics** is recorded and supervised, ranging from **stationary to dynamic data** (time delays), including **low-dimensional to high-dimensional variable spaces** as well as containing **un-labeled and labeled data**.

Profile/Personal Qualification of the candidate:
Ideally, the candidate should have a completed master in Mathematics/Mechatronics/Informatics or other technical study and already have some knowledge about data-driven modeling, system identification as well as machine learning techniques. Interest in fault detection and diagnosis is warmly welcome.

Duration of contract: 3 years   **Start Date:** as soon as possible
Approx. Salary (Gross): approx. 35000-40000 Euro per Year (to be negotiated)
Finance: the position is financed within the **ACCM strategic collaboration** and the Department of Knowledge-Based Mathematical Systems/FLLL at the Johannes Kepler University Linz.
Contact: The candidate should send his CV, degree certificates, references to publications etc. (no later than 31st of July 2011) to
Dr. Edwin Lughofer, email: edwin.lughofer@jku.at Tel.: +43 (0)7236 3343 435