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<https://iiakm.org/conference/>

Invited Talk
**Setup and Knowledge Sharing of the new Fraunhofer Research Group
for Cognitive Material Diagnostics**

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Abstract:

The value and the ability to manage knowledge are essential assets required for any business decisions in an organization. Data mining and analysis derive valuable knowledge, which is more accessible, interpretable, actionable and provides more distilled insights. However, often knowledge discovery is difficult due to the nature of the industrial and business processes. Therefore, employing artificial intelligence in the creation, consumption, and sharing of knowledge could provide tailored and automated solutions for enterprises. The Fraunhofer IKTS project group "Cognitive Material Diagnostics" (KogMatD) in Cottbus aims to address these challenges by developing intelligent systems based on artificial intelligence and machine learning for discovering and sharing relevant knowledge derived from material diagnostics. Rapid transfer of the research results into applications with social relevance is the objective of the interdisciplinary team of experts. Deployment of practical solutions in the early stage supports business processes from virtual product development to comprehensive automation and networking. By choosing Cottbus as its site in the "Lausitz" region, Fraunhofer IKTS demonstrates its social responsibility by bringing excellence in applied research to structurally weak regions. The development of research activities in the mining region envisioned creating new qualified and forward-looking jobs in cognitive materials, machine learning, and artificial intelligence.

About the Speaker:

Dr. Ivan Kraljevski was born in 1974 in Emmen, Netherlands. He obtained his BSc degree in Electronics and Telecommunications in 1997; he acquired his MSc degree in Computer Technology and Informatics in 2000 and his Ph.D. degree in 2004 at the Faculty of Electrical Engineering and Information Technology, University "St. Cyril and Methodius," Skopje, Macedonia. His scientific and professional interests include Speech and Audio Signal Processing, Speech Recognition, Speech Synthesis, Speaker Identification, Noise Robust Speech Recognition, Pattern Recognition, and Artificial Neural Networks. From 2011 till 2013 was working as a researcher in the Speech Technology field at IAS/TU Dresden. He is currently a research fellow at Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Dresden/Cottbus, Germany.

