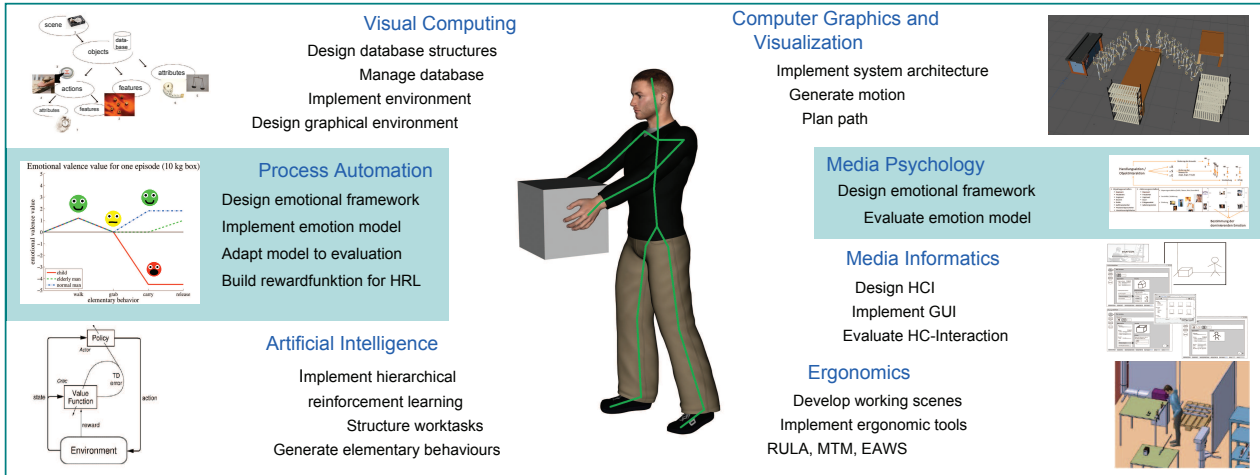


# The Emotion Model of the Smart Virtual Worker

Martina Truschzinski and Nicholas Müller

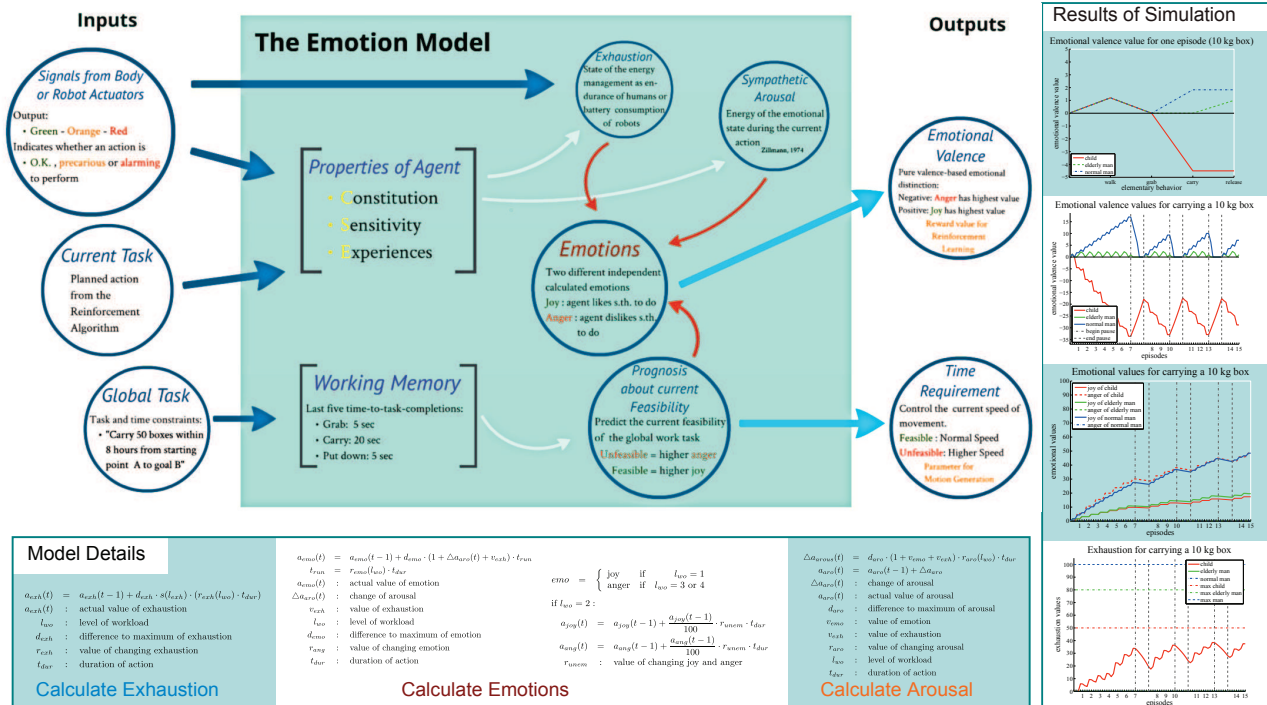
## The participating Chairs of the "Smart Virtual Worker"-Project



The "Smart Virtual Worker" will be implemented by eight members of the Junior Research Group "Smart Virtual Worker – digital human models for simulations of industrial operations". All junior researchers have different fields of knowledge and work as research assistants at the Technische Universität Chemnitz at the seven chairs mentioned above. .

We focus on designing a cognitive and emotional model for a digital human worker which simulates a worker's emotional feelings throughout a typical task within an industrial setting. In this context, we link psychological, biological and artificial intelligence research findings into a complex model representing a real human worker.

## The Emotional Framework for a Real-Life Worker Simulation



The model calculates the emotional valence of different agents performing a predefined task. We demonstrated that the emotional valence and therewith the interpretation of the actual situation depends on the attributes of the agent and the number of repetitions. We have shown that the model can simulate

different attributes which can be used to simulate human behaviour or to enable robots to work with these attributes. In addition, we showed that an elementary behaviour as "joy" and "anger" is interpreted differently depending on the number of boxes carried before.