FORUM
The Stiegelmeyer-Group's company magazine

New thinking leads to better quality of life in hospitals and care facilities

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Stiegelmeyer cooperates with the ISyM Institute at FH Bielefeld

Young researchers are looking into how recovery and quality of life can be promoted in hospitals and care facilities: This is the focus of the cooperation between the Stiegelmeyer company and the Institute for System Dynamics and Mechatronics (ISyM) at the Bielefeld University of Applied Sciences. The two partners have begun a three-year collaboration. Stiegelmeyer is sponsoring the institutes's research with a six-figure amount to facilitate joint mentoring for bachelor and master theses.

In view of the great challenges facing nursing, the requirements that beds in hospitals and senior care facilities are expected to meet will also increase. Beds should contribute as autonomously as possible to optimal positioning and mobilisation of patients. Digitalisation can now provide opportunities to manage the beds more easily.

Topics for bachelor and master theses

ISyM, with its research focus on human mechatronics, is an ideal partner for this task. The institute deals with the question of how modern technology can interact in a supportive way with the human body. One master thesis has already been successfully completed as part of the cooperation: With Stiegelmeyer and ISyM, Tobias Ehlentrup has developed a measuring system to record the distribution of pressure on a mattress base, along with other data. In the next three years, a topic such as determining comfortable reclining positions for patients could be a focus. Small differences in the angles of the four sections of a mattress base could lead to large improvements. One suggestion from Stiegelmeyer is to precisely analyse patient movements using digital data and measurements of pressure distribution. The results would help

create default settings on the bed for ideal positions.

Fresh ideas for digitalisation

Olaf Steuernagel, head of product management for Stiegelmeyer, is happy about the collaboration with ISyM. “Students can conduct unlimited research on and with our products,” he explains. Stiegelmeyer is even making the metrology available. Experts and resources at the development centre in Herford are ready to offer support. “We are certain that the young people will help us find new ways of thinking about digitalisation,” says Mr. Steuernagel. “This generation has grown up with smart devices and has clear ideas about what they expect from the technology and what new uses can emerge.” Ultimately, however, it is about providing more humaneness in the nursing sector through innovative solutions.

Happy about the good collaboration (from left to right): Tobias Ehlentrup, Olaf Steuernagel, Prof. Dr. rer. nat. Axel Schneider, Prof. Dr.-Ing. Joachim Waßmuth, Prof. Dr.-Ing. Dipl.-Ing. Rolf Naumann, Peter Minnig