Realisation of a logistic concept with the Automated Guided Vehicle TransCar.

The Customer

The faculty of medicine of the University of Leipzig is one of the biggest in Eastern Germany. Its history goes back into the early 15th century. Since 1999, the faculty comprehends 29 clinics, three independent departments, and three clinical institutes all integrated in the same public legal entity.

Uncommon and innovative concepts have always been supported by the hospital management. Further optimization have been addressed in the field of in-house transport logistics like the transport of linen, food, or medical goods. Therefore the hospital was looking for solutions.

The Requirements

Based on these new structures the University of Leipzig intended to centralize several functions and organisational units of the surgery clinics in a new building called OKL and two extensions, the conservative clinic and a mother-child clinic.

The Solution

- System: TransCar LTC2
- Track length: 1100m
- No. of vehicles: 16
- No. of stations: 144
- Control: PC
- Commissioning: 2003
- Extension: 2007
The Solution

Most of the manual transports of containers could be replaced by the transport with the AGV. This resulted in a significant decrease of medical resources misused for portering activities. 16 TransCar vehicles carry daily up to 650 containers. Each container can weight up to 500 kg.

The AGV delivers goods between 6:00 am and 8:00 pm to the following departments of the OKL: centralised sterilisation, centre of distribution, operation theatre, wards. The departments are located on 6 different floors. Total daily transport distance is approx. 124 km.

The Project

During the planning phase, the complex and resource-intensive transport processes were analyzed and the results compared to several alternative solutions.

A positive side effect of the analysis was the coherent record of all transports including flow of goods, number of transports within the relevant organizational units.

The final optimized and shortened processes were modelled based on the insights. Due to the change in the transport processes a just-in-time delivery is now possible. The necessary storage of goods has been clearly reduced and the quality of the logistics increased.

The Benefits

> Cost reduction in the field of internal logistics processes
> Acceleration of internal material handling
> Transparency and control of delivery status
> Just-in-time delivery of material

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