This book fills the gap in the market between the numerous theoretical works, which are limited to one topic or few specific topics on rail vehicle technology, and the books for professionals. The target group for this book is students of railways and rail vehicle technology as well as professionals from the industry who wish to refresh or supplement their knowledge. In nearly 190 years of railway history, rail vehicle technology has constantly developed. Today the technical knowledge necessary for the development, construction, operation and maintenance is so complex and extensive that it can not be comprehensively mastered by a single specialist alone. The vehicles are highly specialized depending on their purpose and very different in their operation. Each consists of many different subsystems, which in turn can only be produced by special knowledge and experience. Alongside the dedicated specialist, the generalists are however still in demand when it comes to a total understanding of a rail vehicle. The number of rail vehicle engineers trained every year is relatively low and is significantly below the needs of industry, operators and authorities. Many experts from other sectors are therefore recruited and trained through "Learning by Doing"...