Introduction to the special FMS issue

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It is pleasant to realise that every leading institution and manufacturing company in the world is dealing with some aspects of flexible automation, because many researchers and managers in industry have found that the concept of designing and making goods and products on order, rather than for stock, is the key issue in order to cut down manufacturing costs and lead time, and eventually to stay in business in the future.

The important fact to realise is that demand, as well as the available technology, are changing at an exponentially growing rate, but money is tight and worldwide competition is tough; thus companies need to react to changes much faster and in a more flexible way than in the past, not only when designing new products, but also when manufacturing them.

But how can one design manufacturing systems for a variety of different products of batch sizes ranging from one to several hundred, or more? How can managers see all different but important aspects of a complex business?

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order to increase the local as well as system level intelligence of these complex systems.

Finally, let me express my thanks to Professor Rose, the editor of this journal for inviting me to become the guest editor of this special FMS issue and to all contributors for their interesting and valuable papers, showing a large variety of different concepts and exciting research work carried out in this field.