

An overview of the importance of industrial mathematics

Abstract

Modern manufacturing, engineering and service industries have changed radically in modern times due to the explosion in the knowledge-based economy. High-speed and low-cost computing, the development and utilization of large databases to cope with this sudden need, certainly have necessitated sophisticated methods to meet new demands. We believe that industrial mathematics is one of the enabling factors in realizing and implementing these methods. In this article, it is argued that it is most advantageous to adopt a wide-ranging perspective of industrial mathematics in research and education. In particular, this can be based essentially on the novel idea of “construction and analysis of models”, which is a more holistic approach in highlighting the importance of industrial mathematics to modern industries, and in teaching the programme in institutions of higher learning.