

Otis B. Jennings

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Otis Jennings studies flow and resource utilization in manufacturing and service systems, with emphases on telecommunications, semiconductor manufacturing, and healthcare applications. He seeks to answer questions regarding the optimal setting of processing capacity; the nature of congestion in network environments; effective approaches to the scheduling of resources and the prioritization of work; the effect of processing switchover delays, congestion-induced customer abandonment, and batch processing protocols; and general predictive analytics in stochastic settings.

Developing mathematical models and tools in applied probability, with a focus on queueing theory, Jennings specializes in fluid and diffusion limits, mathematically rigorous approaches to developing and justifying approximations to otherwise intractable or altogether incomputable system dynamics.