

# **Batch Process Automation Methodology Development – a Thermoplastic Injection Molding Example**

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Batch process is the preferred choice for the manufacturing of specialty chemicals or other high value-added products. The differences between a continuous process and a batch process call for the need of modeling, monitoring, control, and optimization methods to be developed in harmony with the batch process nature. In this talk, the speaker will firstly take a thermoplastic injection molding, a process converting plastic granules into various molded parts, as an illustrating process to highlight the batch process nature. Secondly, the speaker will present progresses of these automation methodology developments by exploring or addressing the batch nature. Thirdly, the application of these methods to injection molding will be demonstrated. Finally, some personal views of batch process automation future development particularly on injection molding will be given.

*Keywords:* Batch process modeling and control; Dynamic modelling and simulation for control and operation; Process control

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