

**PLANNING & SCHEDULING ISSUES IN SEMICONDUCTOR MANUFACTURING AND
MOZART® SIMULATION MODELING**

Keyhoon Ko

VMS Global, Inc.
1952 Gallows Rd. STE 110
Vienna, VA 22182, USA

Goo H. Chung
Byung H. Kim

VMS Solutions Co., Ltd.
Hanshin S-MECA #530
65 Techno 3-ro, Yuseong-gu
Daejeon, 34016, Rep. of KOREA

ABSTRACT

Semiconductor manufacturing consists of complex processes and steps aligned with expensive equipment. The capital intensive industry requires effective planning and scheduling to meet the demand, maximize throughput, and reduce cycle time. Various rules and constraints make the planning and schedule problem more difficult. They include photo dedication, sequential and nested queue time, diffusion batching, and setup crew constraints. Based on the experiences and practices implemented in Samsung Electronics, Samsung Display, SK Hynix, LG Display and Micron Technology, we defined each issue with several variations. In this presentation, we will show the detail issues, how easily we can create simulation model and how flexibly we can customize to meet the user specific variations with MOZART®.