TM03

Poster Session

15:40-17:40 **Chair1 : Taechon Ahn (Wonkwang University, Korea)**
Room : Base 2nd Floor-Zillertal **Chair2 :**

TM03-25

Application of Fuzzy Control for STS Strip Shape

YoneGi Hur(POSCO, KOREA)

1. Introduction
2. STS Cold Rolling Process
3. Shape Control Method
4. On Line Test
5. Conclusions

TM03-26

Industrial application of gross error estimation and data reconciliation to byproduction gases in iron and steel making plants

Heui-Seok Yi, Hakchul Shin, Jeong Hwan Kim, Chonghun Han(POSTECH, KOREA)

Process measurements contain random and gross errors and the size estimation of gross errors is required for production accounting. Mixed integer programming technique had been applied to identify and estimate the gross errors simultaneously. However, the compensate model based on mixed integer programming used all measured variables or spanning tree as gross error candidates. This makes gross error estimation problem combinatorial or computationally expensive. Mixed integer programming with test statistics is proposed for computationally inexpensive gross error identification/estimation. The gross error candidates are identified by measurement test and the set of gross error candidates are ...

TM03-27

Optimization of Redundancy based on the required reliability for a reliable Systems

Dong Wan Ryoo, Hyung Jik Lee, Jeun Woo Lee(ETRI, KOREA)

Abstract: The reliability of system is to become a important concern in developed industry. The controller based on the reliability is so important position. A reliable system is for system protection and human life by fault detection and control action against the transient condition of system. The aerospace system, nuclear reactor and chemical reactor are representative of a reliable system. This paper presents analysis of reliable system reliability, formal problem statement of optimal redundancy based on the reliability for a reliable system. And the problem is optimized by genetic algorithm. The genetic algorithms is useful algorithm in case of ...

TM03-28

Modification of CRACKER - a PC based furnaces simulator

Heejin Lim(KAIST, KOREA), Do Jun Kim, Jae Young Yang, Joon Taek Park(SK Co. Ltd., KOREA), Sunwon Park(KAIST, KOREA)

1. Introduction
2. Fundamental Model
3. Simulation Procedure
4. Results
5. Conclusion

TM03-29

Development of a Styrene Monomer Reactor Simulator

Sung-geun Yoon, Heejin Lim, Min-gu Kang(KAIST, KOREA), Jeongseok Lee(LG, KOREA), Sunwon Park(KAIST, KOREA)

1. Introduction
2. System Description
3. Hybrid Modeling of SM Reactor
4. Simulation Results
5. Optimization of Operating Condition
6. Conclusion

TM03-30

The Development of the Real Time Optimal Byproduct Gas Supply System

Jeonghwan Kim, Heui-Sok Yi, Chonghum Han(POSTECH, KOREA)

The optimal byproduct gas supply system was developed for the optimal management of the byproduct gases in the iron and steel making process based on EXCEL environment. It supplies optimal byproduct gas distribution result as well as analysis including expected electricity generation, holder level change, amount of oil consumption, energy distribution to each boiler, and efficiency of energy resource. To reflect the changing environment of the plant such as maintenance, the system was developed to easily change the optimization model for changing configuration of the system. To verify the performance of the system, case studies for various situation was performed with the developed system, a...