Diploma work

Pharmaceutical process simulation

Develop simulation models of KeyPlants standard designs in SuperPro Designer/SchedulePro.

KeyPlants AB

KeyPlants is a well-established and expanding company which provides front-end design, PM and process design consulting, as well as turnkey modular solutions for the Life Sciences and Advanced Technology industries.

Background information

KeyPlants have two standard facility designs: Modular Aseptic Solution(MAS) and Modular Biotech Solution(MBS). To further develop these concepts models are needed for better equipment sizing, utility consumption and process optimization.

Goals

- Fully developed process models for MAS and MBS.
- Equipment specification templates.
- Utility consumption specification templates.

Plan

1. Introduction to MAS/MBS
2. SuperPro Designer/SchedulePro basics
3. Simulation planning and specification
4. Modeling
5. Model evaluation and testing
6. Model scale up

Previous knowledge

Basic knowledge of equipment and processes used in pharmaceutical/biotech production.

Application

Applications are emailed to info@keyplants.com

Diploma work

Construction Cost Comparisons

Increasing Construction Cost in recent years have been a major block to increasing the availability of affordable housing as well as cost efficient pharmaceutical production in North-west Europe. Modular construction is a more cost efficient green-design alternative to conventional construction. KeyPlants´ Modular Concept needs to be compared to conventional in a comprehensive way in order to gain market acceptance.

KeyPlants AB

KeyPlants is a well-established and expanding company providing front-end design, PM and process design consulting, as well as turnkey modular solutions for the Life Sciences and Advanced Technology industries.

Background information

KeyPlants have developed a modular concept for the construction of pharmaceutical/biotech facilities with a comprehensive cost modelling tool (SOV), this tool can be developed and used for conventional cost modelling in order to develop a tool for instance comparison on a project per project basis.

Goals

- A cost comparison between construction of an aseptic filling facility Modular (MAS) and conventional.
- Fully utilizing KeyPlants proprietary SOV (standard of values) as the comparison tool.
- A description of the cost-drivers in a North-western European construction market.

Plan

1. Introduction to Modular construction
2. Introduction to KeyPlants´ proprietary SOV
3. Data collection and input
4. Modelling against existing SOV
5. Model evaluation and comparison against conventional data
6. Description of comparison and drivers

Previous knowledge

Basic knowledge of construction cost and drivers for construction of process facilities.

Application

Applications are emailed to info@keyplants.com

International reference to modular construction

‘‘Dean in New York is claimed to be the tallest modular building anywhere in the world when construction finished. Opened in December 2016, the building stands out as a means of supplying affordable housing in one of the most expensive housing markets in existence.’’

http://www.construction-institute.org/