

**Speaker: Dr Magdalene ak Andrew Munot**

**Title: An Insight Into Manufacturing**

This seminar will introduce and discuss remanufacturing of used-products, which is becoming an important production activity amongst many manufacturers. The major driving factors for such emerging trend are increasingly strict environmental regulations imposed by governmental bodies, growing consumers' awareness of green environment and potential economical benefits. It has been established that remanufacturing is beneficial to manufacturing companies because it provides the opportunity to generate extra profit, obtain low cost raw materials, produce stock of spare-components and boost companies' product value. The major remanufacturing process involves inspection/grading, disassembly, components reprocessing and reassembly/testing. Finally, this seminar will introduce and discuss an integrated production and inventory planning simulation model model which has been applied to address production and inventory planning problem in a case study company that specializes in remanufacture of photocopier parts/components. It has been shown that for processing two different quality remanufacturables groups in a RMTS-system, a policy which specifies simultaneous processing utilising dedicated resources provides a better mechanism to achieve a shorter remanufacturing cycle-time. Furthermore, for processing two different quality remanufacturables groups in a RMTO-system, a policy which specifies sequential processing and switching between various quality remanufacturables groups provides a better mechanism to achieve a shorter remanufacturing cycle-time.