Finding the right balance between automation and manual planning in the manufacturing companies
Maryam Azani – Eindhoven University of Technology

In today's business environment with industry 4.0 paradigm, availability of big data, IoT and many other advanced technologies, our ways of doing business are being transformed. Automation of tasks has touched every aspect of human's life. In the manufacturing companies, a lot of effort has been made to fully automate planning, forecasting, inventory management just to mention a few. Also, a vast majority of literature has focused on human planners' incapabilities justifying the decision for full automation of tasks. Despite the fact that human planners' cognitive capabilities are limited; decision support systems are not always the alternative. We know from experience that these systems may not be fully reliable. Specially if the input data, model and the algorithms which builds the backbone of these systems are not reliable. The main purpose of this research is to find the balance between automation and manual planning task in manufacturing companies by investigating both human planners and decision support systems' capabilities and limitations. We mainly analyze MR I, MRP II and APS systems and the planners working with them. To this end, experimental research method will be utilized.