



INDUSTRIAL MANAGEMENT



Seminario Permanente en Diseño, Gestión y Optimización de Procesos
Industriales y de Servicios

*Seminar on Design, Management and Optimization of Processes in Industry and
Services*

“How to reduce the patients’ waiting time in an Oncology
Department: A real case study”

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Summary: Recently, the oncology units have to face an increasing demand of patients, causing higher workloads and, even more, a dramatic growth of the patients’ waiting time. This seminar deals with the application of operations research tools for improving the performance of the oncology units. At first, we address the problem of selecting the best service and resource configuration able to enhance the humanization of patients by reducing their waiting time in a real-world oncology department located in Southern Italy. To this end, we made full use of the value stream map tool and stochastic simulation to validate and assess the proposed solutions. Secondly, we address comparative analysis of metaheuristic algorithms to solve the daily chemotherapy outpatient-appointment scheduling problem. Finally, we evaluate the impact of the resource in the performance of a general oncology department through an agent-based simulation model.

ROBERTO CORSINI is a Management Engineer since 2017. He graduated at the University of Catania in July 2017. In the last months of 2017, he worked as a production planner for Marzocchi Pompe S.p.A in Bologna (Italy). Since January 2018, he works for Azienda ospedaliero-Universitaria “Policlinico – Vittorio Emanuele” located in Catania (Italy) in a project called “Lean Manufacturing in Oncologia”. The aim of the project is to enhance the humanization of patients, reduce the patient’s waiting time and improve the performance of the oncology department. Since October 2018, he is also a PhD Student in Complex Systems for Physical, Socio-economic and Life Sciences (Department of Department of Physics and Astronomy “Ettore Majorana” - University of Catania, Italy). His PhD research project focuses on the optimization of the healthcare departments. In 2019, he attended to the EIT Healthcare Jumpstarter Competition, managed by EIT (European Institute of Innovation & Technology – A body of the European Union) and he was selected for the EIT Grand Final on 14 November 2019 in Riga.