# 3 صناعية – جديدة

# Operations research (2)

# بحوث عمليات (2)

# Research on Applications / case-studies on Operations Research topics (2)

**Operation research topics**

**Part I**

1. Integer programming (Mixed, pure or binary integer programming)
2. Goal programming

**Part II**

1. Nonlinear programming
2. Dynamic programming

**Research rules and regulations**

* Every single student is required to do a research on one topic from part I, and one topic of part II.
* The required research is supposed to be an application or case study in the chosen topics.
* Applications and case studies from handbooks, and/or textbooks, such as solved examples, are not permitted.
* From this application, students are required to define the following information

1. The decision variables
2. The objective/objectives of the application
3. The constraints, if any.
4. The formulation (Mathematical model type, etc.)
5. The solution method.

* Every student should make Power point presentation with audio voice for the two topics, explaining his understanding of report elements.
* Content of the research report:
* Cover page (صفحة الغلاف)
* Table of contents (المحتوى)
* Abstract / Summary (المستخلص أو الملخص)
* Introduction (المقدمة)
* Subject (عناصر موضوع البحث )
* Conclusions (النتائج)
* References (المراجع)
* Each student should register via the below link,

<https://docs.google.com/forms/d/e/1FAIpQLSd_7m4TDFMrEhX31IxIPYi5QhE02SMU0dYW6TeSLZSh2rKLpQ/viewform?usp=sf_link>