Bocconi

TECHNOLOGY RISK GOVERNANCE. MAJOR ASSIGNMENT

Instructions

Università Bocconi MILANO

POLITECNICO MILANO 1863

Course written assignments

- Students are requested to prepare a **(group) major assignment** selecting one of the following options:
  - **Critical Incident Analysis**: description and in-depth analysis of an industrial accident/disaster involving cyber or IT risk factors
  - **Technology Risk Assessment**: perform a preliminary risk assessment of a digital solution for a specific product/system/process issue, within an industry of your interest
- To improve their final mark, all the students may **voluntary** complete one or two **(group) minor assignments**:
  - Analysis of the accident in a Co-generation Plant (Class 6)
  - Critical discussion of a critical incident in an interdependent networked infrastructure system (Class 18).
- Submission deadlines:
  - Minor Assignments report: Friday, Dec 20, 2019
  - Major Assignment: at least one week before one of the sessions of the final oral exam

Objectives and Deliverable

- The assignment is intended to deepen your capability of critically apply Technology Risk Governance principles and methods
- Prepare a **report of max 20 pages**
- Groups of **max three students** are accepted

Critical Incident Report

AIM AND STRUCTURE

By looking at different industrial domains, students should identify a relevant industrial accident/disaster involving cyber or IT risk factors, for which enough secondary data are available from different sources (technical and scientific)

— The paper should cover this main points:

- **Description** of the company/system of interest and of the event, based on publicly available documentation
- **Model-based in-depth analysis** of the accident by applying the most appropriate technique, considering both technical and organizational factors
- **Critical discussion** of the appropriateness of the implemented countermeasures, and generalization of the lesson learned to improve safety performance in the specific industry

Technology Risk Assessment report

AIM AND STRUCTURE

Referring to a specific industrial domain (e.g. manufacturing, process industry, transportation, etc.) students should select an existing digital solution (or identify a plausible digital innovation) at either product, system o process levels and perform a preliminary risk assessment using secondary data

— The paper should cover this main points:

- **Introduction**. Brief description of the area of investigation (industry/ies and business model, product, system, processes)
- **Business case**. Description of the technological solution and the main specifications for implementation (or main use cases)
- **Reference documentation**. Search methodology and the knowledge base selected for the analysis
- **Risk Assessment**. Selection and justification of the RA method. Reporting of all the Risk Assessment phases (identification/analysis/ evaluation)
- **Discussion**. Suggest possible risk mitigation options and assess residual risk

Deadlines for the Major Assignment

— Review sessions on **Tuesday 17/12/2019** and **Thursday 19/12/19**

— **Composition** of the group (names and contacts) the type and a **tentative title** of the report must be communicated to paolo.trucco@polimi.it no later than **Tuesday 19/11/19**

— The **final manuscript** must be submitted at least **one week before** one of the dates of the final oral exam

— **Submission**: please submit a digital copy (Word or PDF) of your manuscript to paolo.trucco@polimi.it

- File name: surname1-surname2-surname3.pdf
  surname1-surname2-surname3.docx

Resources

- WEB
- Google Scholar
- POLIMI and Bocconi Libraries and electronic resources
- Books and other documents that you may ask for to the instructors
- Your personal network of contacts
- …

THANKS.

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