Project proposals

1) Aircraft Reliability Prediction Calculation Engine according US Department of Defense MIL-HDBK-217F – Part 1

Title: "Development of the Calculation Engine for an Aerospace Reliability Prediction Modelling tool according US Department of Defense MIL-HDBK-217F – Part 1"

Title (IT): *"Sviluppo del motore di calcolo per un software di predizione di affidabilità secondo il MIL-HDBK-217F (Dipartimento della Difesa, USA) – Parte 1"*

Description: The student will develop a portion of the Calculation Engine for a tool used to perform Reliability Predictions in the Aerospace industry. The main activity, performed in conjunction with the DMD Solutions Reliability Team, will be the creation of the input database for the MIL-HDBK-217F calculation core and the bridging to the Software main code by developing object-oriented classes.

Part 1 of this project will focus on several categories of the MIL-HDK-217F database such as microcircuits, discrete semiconductors, tubes, lasers....

The student will develop the following abilities:

1) Knowledge of RAMS Engineering applied to the Aerospace industry
2) Knowledge of Reliability Predictions Techniques (specifically US DoD MIL-HDBK-217F).
3) Knowledge of electronics components
4) Knowledge of Computer Programming (VBA, SQL, Python...)

Outcome: The student will deliver portion of the Calculation Engine Database + bridging object-oriented code, as well as a Technical Report of the work performed.

2) Aircraft Reliability Prediction Calculation Engine according US Department of Defense MIL-HDBK-217F – Part 2

Title: "Development of the Calculation Engine for an Aerospace Reliability Prediction Modelling tool according US Department of Defense MIL-HDBK-217F – Part 2"

Title (IT):   *"Sviluppo del motore di calcolo per un software di predizione di affidabilità secondo il MIL-HDBK-217F (Dipartimento della Difesa, USA) – Parte 2"*

Description: The student will develop a portion of the Calculation Engine for a tool used to perform Reliability Predictions in the Aerospace industry. The main activity, performed in conjunction with the DMD Solutions Reliability Team, will be the creation of the input database for the MIL-HDBK-217F calculation core and the bridging to the Software main code by developing object-oriented classes.

Part 2 of this project will focus on several categories of the MIL-HDK-217F database such as resistors, capacitors, inductive devices, rotating devices....

The student will develop the following abilities:

1) Knowledge of RAMS Engineering applied to the Aerospace industry
2) Knowledge of Reliability Predictions Techniques (specifically US DoD MIL-HDBK-217F).
3) Knowledge of electronics components
4) Knowledge of Computer Programming (VBA, SQL, Python...)

Outcome: The student will deliver portion of the Calculation Engine Database + bridging object-oriented code, as well as a Technical Report of the work performed.

3) Aircraft Reliability Prediction Calculation Engine according US Department of Defense MIL-HDBK-217F – Part 3

Title: "Development of the Calculation Engine for an Aerospace Reliability Prediction Modelling tool according US Department of Defense MIL-HDBK-217F – Part 3"

Title (IT):   *"Sviluppo del motore di calcolo per un software di predizione di affidabilità secondo il MIL-HDBK-217F (Dipartimento della Difesa, USA) – Parte 3"*

Description: The student will develop a portion of the Calculation Engine for a tool used to perform Reliability Predictions in the Aerospace industry. The main activity, performed in conjunction with the DMD Solutions Reliability Team, will be de creation of the input database for the MIL-HDBK-217F calculation core and the bridging to the Software main code by developing object-oriented classes.

Part 3 of this project will focus on several categories of the MIL-HDK-217F database such as meters, connectors, interconnection assemblies....

The student will develop the following abilities:

1) Knowledge of RAMS Engineering applied to the Aerospace industry

2) Knowledge of Reliability Predictions Techniques (specifically US DoD MIL-HDBK-217F).
3) Knowledge of electronics components
4) Knowledge of Computer Programming (VBA, SQL, Python...)

Outcome: The student will deliver portion of the Calculation Engine Database + bridging object-oriented code, as well as a Technical Report of the work performed.

4) Aircraft Reliability Prediction Calculation Engine according RIAC 217 Plus – Part 1

Title: "Development of the Calculation Engine for an Aerospace Reliability Prediction Modelling tool according RIAC 217 Plus – Part 1"

Title (IT): *"Sviluppo del motore di calcolo per un software di predizione di affidabilità secondo il RIAC 217 Plus – Parte 1"*

Description: The student will develop a portion of the Calculation Engine for a tool used to perform Reliability Predictions in the Aerospace industry. The main activity, performed in conjunction with the DMD Solutions Reliability Team, will be the creation of the input database for the RIAC 217 Plus calculation core and the bridging to the Software main code by developing object-oriented classes.

Part 1 of this project will focus on several categories of the RIAC 217 Plus database such as microcircuits, discrete semiconductors, tubes, lasers....

The student will develop the following abilities:
1) Knowledge of RAMS Engineering applied to the Aerospace industry
2) Knowledge of Reliability Predictions Techniques (specifically US DoD RIAC 217 Plus).
3) Knowledge of electronics components
4) Knowledge of Computer Programming (VBA, SQL, Python...)

Outcome: The student will deliver portion of the Calculation Engine Database + bridging object-oriented code, as well as a Technical Report of the work performed.

5) Aircraft Reliability Prediction Calculation Engine according RIAC 217 Plus – Part 2

Title: "Development of the Calculation Engine for an Aerospace Reliability Prediction Modelling tool according RIAC 217 Plus – Part 2"

Title (IT):   *"Sviluppo del motore di calcolo per un software di predizione di affidabilità secondo il RIAC 217 Plus – Parte 2"*

Description: The student will develop a portion of the Calculation Engine for a tool used to perform Reliability Predictions in the Aerospace industry. The main activity, performed in conjunction with the DMD Solutions Reliability Team, will be the creation of the input database for the RIAC 217 Plus calculation core and the bridging to the Software main code by developing object-oriented classes.

Part 1 of this project will focus on several categories of the RIAC 217 Plus database such as resistors, capacitors, inductive devices, rotating devices....

The student will develop the following abilities:
1) Knowledge of RAMS Engineering applied to the Aerospace industry
2) Knowledge of Reliability Predictions Techniques (specifically US DoD RIAC 217 Plus).
3) Knowledge of electronics components
4) Knowledge of Computer Programming (VBA, SQL, Python...)

Outcome: The student will deliver portion of the Calculation Engine Database + bridging object-oriented code, as well as a Technical Report of the work performed.

Dario Di Martino
Aerospace Engineer
Master Business Administration (MBA)
CEO at DMD Solutions