

Framework for flexible Programmable Logic Controller (PLC) design in protection systems

Tuesday, 12 November 2019 10:30 (1h 30m)

When designing PLC based safety or protection critical systems to be used in a dynamic design environment, flexibility of design is crucial for the operation and integrity of the system. A dynamic design environment is one where change can be constant, such as when the implementation stage of the project life cycle overlaps largely with the design stage due to complexity or time limitations, or where a facility can have a very fast ramp up in size requiring fast incremental updates in the system. A system design which is not flexible and well considered from its conception in this environment can easily lead to loss of the system integrity through repetitive complex changes requiring detailed and lengthy change management and testing exercises to re-validate. This scenario will result in project delays, a sub-standard system and decreased motivation in the development team. To achieve maximum flexibility and minimise verification and validation activities, the PLC design should be based on the use of a high degree of modularity and incorporate the use of centralised reusable component libraries where possible.

Primary author: Mr CARROLL, Martin (ESS)

Presenter: Mr CARROLL, Martin (ESS)

Session Classification: Poster Session