



Rolls-Royce

A Rolls-Royce drive in nuclear I&C

**A one-day journey in engineering, technology,
and licensing for safety instrumentation and
controls projects worldwide.**

Technical seminar at Budapest university of technology and
economics on 11 May 2016.

Sponsored by Prof. Attila Aszódi, Hungarian government
commissioner, and and Dr. Szabolcs Czifrus, director of
departement of nuclear techniques at Budapest university.



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Agenda (1/2)

| Topics | | Time-slot | Speakers |
|----------------------|--|---------------|--------------------------------|
| Seminar Introduction | Welcome and opening messages | 09h45 - 10h15 | Pr. Dr. Aszodi Neil Parison |
| | Review of the Seminar Agenda | | Naim Fahim |
| Part 0 | Rolls-Royce Company presentation Focus on Civil Nuclear I&C Business history, solutions portfolio, organization | 10h15-11h15 | Neil Parison/ Naim Fahim |
| | Rolls-Royce I&C Projects existing and future Roadmap Major cooperations that ensure Technology availability and Customer support guarantee for next 30 years, with high Customer proximity | | Robert Sommacal |
| Part 1 | Nuclear Power Plant Overall I&C overview <ul style="list-style-type: none"> ▪ Overall I&C architecture – technical description ▪ Overall I&C Architecture development and licensing organization – description of a known and effective scheme, in reference to a Newbuild project in Finland | 11h15-11h45 | Naim Fahim |
| | <i>Coffee break</i> | 11h45 - 12h00 | |
| Part 2 | Rolls-Royce Safety I&C Licensing approach and capabilities: <ul style="list-style-type: none"> ▪ Main Safety concepts, and design principles at stake ▪ Common issues we can face and how we implement this within costs/ quality and timing targets in compliance with applicable codes and standards | 12h00-12h30 | Jean-Michel Palaric |
| Part 3 | Rolls-Royce views on I&C Systems for Nuclear Island: <ul style="list-style-type: none"> ▪ Main Systems cartography and respective roles, performance (criteria), and interfaces with Plant I&C, including: <ul style="list-style-type: none"> ○ Reactor protection System including (Reactor Trip System and Engineered Safety Features Actuation System) ○ Rod Control System ○ Neutron Instrumentation System ○ Plant Monitoring System | 12h30-13h15 | Jean-Pierre Burel |
| | <i>Lunch break</i> | 13h15 - 13h45 | |



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Agenda (2/2)

| Topics | Time-slot | Speakers | Topics |
|-------------------|--|-------------|------------------------|
| Part 4 | Features of the Rolls-Royce Spinline™ digital technology platform: <ul style="list-style-type: none"> ▪ Nuclear dedication, design concept, applied functions, performances, development environment, and qualification ▪ Adaptability to various architectures, and cases | 13h45-14h15 | Jean-Michel Palaric |
| Part 5 | I&C life-cycle management, and long-term support services: <ul style="list-style-type: none"> ▪ Technical data management and experience feedback ▪ Equipment Configuration Management ▪ Technical intelligence and obsolescence management ▪ Evolution mastering | 14h15-14h45 | Marie-Pierre Courouble |
| Part 6 | Application experiences in I&C refurbishment and in new-build projects : <ul style="list-style-type: none"> ▪ French Fleet modernization projects VD3 1300Mw, and VD4 900Mw fleet ▪ ELSA – Loviisa in Finland ▪ Hanhikivi-1 NPP construction (initial phase) | 14h45-15h00 | Robert Sommacal |
| Conclusion | Questions & Answers Seminar wrap-up, conclusion messages | 15h00 | All |
| Cocktail | Discussions, networking | till 16h00 | |



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