Training Opportunity for Luxembourgish Trainees

Reference	Title	Duty Station
LU-2019-TEC-EDC	Assessment of commercial EEE components	ESTEC

Overview of the unit's mission:

Commercial components (as opposed to space or military qualified ones) are seeing more wide spread use in space applications and there is currently very high attention paid to this area. Reasons behind are several; constellation programs, cost savings and increased performance among them.
While ESA project's has an extremely good track record for EEE components in flight operation the experience from commercial components is more limited. More hands on experience from the field would five added value and also information about potential key components.

Overview of the field of activity proposed:

-To identify a limited number of commercial components including digital and analogue integrated circuits. This should be done in collaboration with electrical designers and especially addressing potential reference designs.

-Procurement of these parts with dedicated attention paid to traceability and access to certification of automotive qualification.

-Running and coordinating evaluation of the parts based on ECSS-Q-ST-60-13C.

-Reporting.

An additional and not connected activity foreseen in the laboratory would be to measure isolation voltage in vacuum for different opto couplers as recent test results indicate loss of hermetic seal may also affect the isolation.

Required education:

Master of science in physics or electronics.