

PhD position 3: Optical package reliability assessment based on metamodels	
Employers	
Prof. Dieter Gruber from Polymer Competence Center Leoben GmbH (PCCL) in Leoben, Austria and Dr. Fabian Huber from ams-OSRAM AG in Premstätten, Austria are looking for a PhD candidate to join a three-year research training within the EU-funded MCSA industrial doctorate MIRELAI. You will be enrolled in the PhD programme of Montan University Leoben (MUL) and supervised by Prof. Dieter Gruber (PCCL) and Dr. Peter Fuchs (PCCL).	
Project description	
<ul style="list-style-type: none"> · Calibration of a FE simulation model to a reliability use case. Description of specific failure mode by definition of influence parameter space (e.g. change in stress components as consequence of process variations, materials properties, design, additional pre-conditioning) and response distribution. · Meta-model setup and training by feeding FE sensitivity analysis and resulting response distributions from electrical/optical/functional testing of sensors. Isolation of parameter distribution to give response optimum (fit to test data). · Prediction of response to very large number of variations of new package design already during development phase by meta-model. 	
International mobility	
As a PhD candidate, you will be employed for 18 months each by PCCL and ams-OSRAM. During the placement at PCCL, you will also undertake a 1-month placement at TU Chemnitz, supervised by Prof. Bernhard Wunderle.	
Requirements	
Specific Eligibility Criteria on the Horizon Europe: Marie Skłodowska-Curie (MSCA) programme apply, including the mobility rule and PhD rules. Applicants of any nationality are welcome.	
Additional requirements	
<ul style="list-style-type: none"> · Master's degree in mathematics, physics or data science/machine learning · Background in Fe simulation, machine learning, python programming · English proficiency (e.g., IELTS, TOEFL, or similar test, not for native speakers) 	
The monthly support and benefits	
<ul style="list-style-type: none"> · The successful candidate will benefit from an international scientific network of academic and industrial partners with research excellence in microelectronics reliability based on experimental characterization, simulation, data-driven approaches and machine learning · Flexible working hours and part-time home office · Personalised career development plans will be established to support the needs of the PhD candidate · The Phd candidate will receive an attractive salary in accordance with the MSCA regulations. The financial package will include: 1) Living allowance of €3,450 (country correction coefficient applies), 2) Mobility allowance of €600, 3) Family allowance (€660), if applicable. The exact (net) salary will be confirmed upon appointment and is dependent on local tax, social and health insurance regulations and the country correction factor 	
Application	
Required documents:	Complete applications in English should include: <ul style="list-style-type: none"> · CV, Letter of motivation · Letter of recommendation · English language proficiency certificate(s) (not for native speakers)
Selection process:	<ul style="list-style-type: none"> · Our selection procedure for PhD position is open, transparent, merit-based and in line with the principles set out in the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers · The application dossier needs to be submitted as a single PDF file to peter.fuchs@pccl.at by 08-01-2023. Please indicate in the subject line: 'MIRELAI: PhD position 02 - your name' · Pre-selected candidates will be invited for interviews by 15-01-2023. Unsuccessful applicants will not receive any notification.
Application deadline:	08-01-2023
Expected start date:	The individual PhD project is set to start between 01-01-2023 and 01-04-2023
Contact person for enquiries:	Dr. Peter Fuchs, Email address: peter.fuchs@pccl.at , Phone: +43 (0)3842 42962-20