

PhD position 1: Criticality assessment methodology for PCBA features	
Employers	
Dr. Peter Fuchs from Polymer Competence Center Leoben GmbH (PCCL) and Dr. Thomas Krivec from AT&S Austria Technologie & Systemtechnik AG (AT&S) , both in Leoben, 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 Dr. Peter Fuchs (PCCL) and Prof. Thomas Antretter (MUL).	
Project description	
Development of Printed Circuit Board Assembly (PCBA) feature finite element (FE) simulation models (for example micro-via, via stack or plated through hole) which fulfill the following key aspects: 1) Consideration of manufacturing and design uncertainties. 2) Detailed representation of deformation and stress behaviour and a script-based automated and time-efficient implementation. Generation of an input-set for the subsequent data-driven modelling of the feature. Evaluation of the respective stress/strain level of a chosen instance of the feature within the PCBA and the potential definition of a criticality level. Validation based on experimental results.	
Planned mobility	
As a PhD student, you will be employed for 18 months each by PCCL and AT&S. During the placement at PCCL, you will also undertake a 1-month placement at TU DELFT, supervised by Prof. van Driel.	
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 material science, polymer engineering, mechanical engineering, physics, mathematics · Background in material science, FE-simulation (e.g., Abaqus), and programming (e.g., Matlab, Python) · 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 candidates will benefit from an international scientific network of academic and industrial partners with research excellence in microelectronics reliability based on experimental characterization, simulation, and data-driven approaches · Flexible working hours and part-time home office · Personalised career development plans will be established to support the needs of the Doctoral Candidate · The Doctoral 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 on 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 · Application dossier needs to be submitted as a single PDF file to peter.fuchs@pccl.at by 31-01-2023. Please indicate in the subject line: 'MIRELAI: PhD position 01 - your name' · Pre-selected candidates will be invited for interviews by 15-02-2023. Unsuccessful applicants will not receive any notification
Application deadline:	31-01-2023
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



Co-funded by
the European Union



Engineering and
Physical Sciences
Research Council

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