



APPLICATION FORM: GLOBAL TRAINING PROGRAMME 2021-2022 – INTERNSHIP INFORMATION

CORPORATIVE INFORMATION	
Name of the company	JOANNEUM RESEARCH Forschungsgesellschaft mbH
Contact Person	Vojislav Petrovic Filipovic Email: _____
Location	Country: Austria
	City: 8712 Niklasdorf
	Address: Leobnerstrasse 94
Sector	RIS3 sector: ADVANCED MANUFACTURING

PROPOSED INTERNSHIP INFORMATION	
Number of trainees to host	1
Extension time (extra months and salary) OPTIONAL SEE DOCUMENT: "FORM 2_Global Training 2021 extension preliminary agreement"	Extra months: 5-6
	Monthly payment for extra months (between 0-1500€/month): See APPLICATION FORM 2

INTERNSHIP/PLACEMENT INFORMATION	
Department (in case you want more than 1 trainee, indicate the different departments where they will work)	Materials – Institute for Surface Technologies and Photonics Research Group: Laser and Plasma Processing
Description of project/activities (in case you want more than 1 trainee, indicate the different projects/activities on which they will work)	Our research group is specialized in Laser and Plasma Processing. We work on both company services and R&D projects obtained from public funding. The main areas of activity in the laser processing is laser welding, laser cladding, laser alloying and laser Additive Manufacturing for industrial applications. The main sectors of industrial application in our case are aerospace, biomedical, heavy industry, metalworking sector, automotive industry, etc. The activities of the candidate could be related to: <ul style="list-style-type: none"> ✓ Laser welding of novel materials for industrial use; ✓ Laser cladding of high performance materials; ✓ Additive Manufacturing of big components for aeronautical and power generation sectors. ✓ Development and testing of monitoring and control tools for laser processing. ✓ Etc.

COMPETENCES, SKILLS and EXPERIENCE REQUIREMENTS





<p>Requested profile(s) information (Studies, previous experience, language skills, other skills...)</p>	<p>The candidate should possess the following qualifications:</p> <ul style="list-style-type: none"> - M.Sc. in Industrial Engineering (Mechanical Engineering, Metallurgy Science), although M.Sc. in Physics (Optics) and M.Sc. in Process Automation is not precluded. - Language skills: Proficiency level in English is necessary, basic level of German would be highly valued.
<p>Other commentaries</p>	<p>The Research Topic leader of Laser Production Technologies is a native Spanish speaker, which would help the integration of the candidate.</p>

APPLICATION FORM 1

INFORMATION ABOUT THE COMPANY/INSTITUTION

<p>LOGO</p>	
<p>WEBSITE</p>	<p>Company: https://www.joanneum.at Research Group: https://www.joanneum.at/en/materials/research-areas/laser-processing</p>
<p> INFORMATION ABOUT THE CITY AND THE AREA WHERE THE COMPANY/ISTITUTION IS LOCATED (General information about SECURITY, ACCOMODATION, PUBLIC TRANSPORT...) </p>	<p>The Research Group Laser and Plasma Processing of the Institute MATERIALS of JOANNEUM RESEARCH Forschungsgesellschaft mbH is located in Niklasdorf. Niklasdorf is a small town in the vicinity of Leoben, which is one of main university centers in Austria (Montana University Leoben). JOANNEUM RESEARCH facility is reachable by bus (L810) and train (any S-line that goes from Leoben towards Bruck/Mur and Murzzuschlag stops in Niklasdorf). The train stops is 15mins walk from JR, while the bus stop in directly in front of the JR. In addition, in summer, bicycle ride from Leoben to JR is a very pleasant flat, 20min ride using a dedicated bike lane.</p> <p>Leoben accounts with the many student residents and single hotels for visiting researchers, professors and workers. Some of the most comfortable are Minerroom (link), Greenbox (link), Living Campus (link), etc. The common price for a single person is 300-350€/month, including costs of light, hot water, internet and many additional facilities such as laundry, gym, bicycle rent for free, etc.</p> <p>Finally, Leoben is a very pleasant, vivid and small-size town of 25.000 inhabitants with a lot of outdoor activities (see: Mugel hike, Bärenschutzklamm, etc.) and a number of festivals, among other sponsored by a local brewery Gösser, one of the most important in Austria. Graz is a major town, capital of Styria, which is at 45min train ride from Leoben with trains scheduled every 30-40mins.</p> <p>As everywhere in Austria, personal security is at the outmost level. Due to COVID regulations, there might be some restrictions, but at the same level of other EU countries.</p>
<p> GENERAL INFORMATION ABOUT THE COMPANY/INSTITUTION </p>	<p>JOANNEUM RESEARCH Forschungsgesellschaft mbH is a professional leader of innovation and provider of technology. Its entrepreneurial focus and track record of 30 years of cutting-edge research performed on an international scale has made it stand out from the crowd. This key function is to facilitate the transfer of technology and knowledge in South-East-Austria. For these reasons, it is perfectly suited for applied research and technology development.</p> <p>JOANNEUM RESEARCH networks with members of national and international scientific and research communities. It is a recognised research partner whose scientific work fulfills the highest international standards. It supports companies during the development of technologies and processes. In this way, it makes a crucial contribution to secure and increase the competitiveness of Styria, Carinthia and Burgenland as a location for research, innovation and business.</p> <p>JOANNEUM RESEARCH has re-positioned itself through a comprehensive strategic process in compliance with shareholders to meet all the scientific and economic requirements. During the course of this development new research content and objectives have been defined, the structures of the work have been adjusted to meet the new requirements and the task profiles have been streamlined.</p> <p>With this considerations JOANNEUM RESEARCH has the following key tasks:</p> <ul style="list-style-type: none"> • innovation • networking • knowledge transfer <p>The Institute MATERIALS provides a link development of large area processes and industrial application. By forming strategic partnerships with both regional and international partners in the scientific and industrial sectors, MATERIALS develops comprehensive, interdisciplinary solutions to problems encountered in the fields of optical application, medical technology and manifold other applications.</p>
<p>SIZE OF THE COMPANY (EMPLOYEES)</p>	<p>500</p>



<p>NUMBER OF PEOPLE AT THE DEPARTMENT WHERE THE TRAINEESHIP WILL TAKE PLACE</p>	<p>22</p>
<p>MAIN ACTIVITY OF THE COMPANY/INSTITUTION</p>	<p>JOANNEUM RESEARCH's institute MATERIALS - Institute for Surface Technologies and Photonics MATERIALS provides access to the latest technologies required for implementing innovative products and services, for example: Green Photonics and Electronics Structured (biomimetic) surfaces Piezoelectric sensors and energy harvesters Large-scale production of organic layers (roll-to-roll, screen printing) (Optical) Chemo-and Biosensors Laser Production Technology Aerosol and inkjet printing Laser and plasma-assisted vacuum deposition process</p> <p>MATERIALS has long-standing experience in managing a wide range of research cooperations, thus enabling the clients to successfully participate in national and international funded research projects.</p> <p>The team of around 100 researchers provides interdisciplinary solutions across the entire value chain – from the idea to the prototype – using cutting edge technologies and methods based on miniaturisation, integration and materials optimisation. Combined with state-of-the-art equipment and infrastructure MATERIALS offers innovative solutions and services tailored to the needs of business and industry. More than 20 years of close cooperation with leading research institutions such as the Austrian based Graz University of Technology or the University of Leoben enables us to continuously improve and extend the portfolio of expertise.</p> <p>Main activities include also medical sensor development, development of materials for optical and imprinting purposes, simulation and prototyping of manifold applications.</p>
<p>A BRIEF EXPLANATION OF MAIN PROJECTS</p>	<p>JOANNEUM RESEARCH Institute MATERIALS - Research Group Laser and Plasma Processing:</p> <ul style="list-style-type: none"> • Qual-DED (FFG-PdZ, 2020-2023): Total quality control of laser Directed Energy Deposition process for zero-defect components • SustainAIR (H2020, 2021-2024): SUSTAINability increase of lightweight, multifunctional and intelligent airframe and engine parts • Join!SLM-ticfk (FFG-Take Off, 2020-2022): Entwicklung von an die Nachgiebigkeit von CFK-Laminaten angepasste TiAl6V4-Inserts für höchste Ermüdungsfestigkeit • Manufacturing of Ti-6Al-4V test samples by Powder Bed Fusion (PBF) for novel Hybrid Additive Manufacturing Approach, KETGATE Project Experiment (2019-2020) • 3D Aerotip (FFG-Take Off, 2017-2020): Additive manufacturing for innovative titanium components for the aviation industry.
<p>PREVIOUS COLLABORATION IN INTERNSHIP/TRAINING PROGRAMMES?</p>	<p>JOANNEUM RESEARCH MATERIALS is participating for the fourth time in this internship project. In the year 2017/2018 we participated the first time and hosted two students: Elena Gonzalez and Asier Alvarez. Asier is still in Weiz, doing a PhD in microfluidic simulation. In the year 2018/2019 we also participated and Izar Gorroñoigoitia Uribarren was doing her internship. She left after 12 month for a research job in Basque country. In the year 2019/2020 we were hosting again two students: Jon Ostolaza and Mikel Arocena. Mikel prolonged his internship for 6 months and has currently another years contract at our institute.</p>
<p>OTHER COMMENTARIES</p>	