

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

CORPORATIVE INFORMATION			
Name of the company		JOANNEUM RESEARCH Forschungsgesellschaft mbH	
Contact Person		Anja Haase	E-Mail
Location	Austria	Austria	
	8160 Weiz	8160 Weiz	
	Franz Pichlerstrasse 30	Franz Pichler-Strasse 30	
Sector		RIS3 sector: BIOSCIENCE - HEALTH	

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

INTERNSHIP/PLACEMENT INFORMATION	
<b>Department</b> (in case you want more than 1 trainee, indicate the different departments where they will work)	Materials – Institute for Surface Technologies and Photonics Research Groups: Hybrid Electronics and Patterning, Light and Optical Technologies, Sensors and Functional Printing
<b>Description of project/activities</b> (in case you want more than 1 trainee, indicate the different projects/activities on which they will work)	Our research groups are specialized in Roll to roll nanoimprinting of different structures, such as optical structures, microfluidic structures and lab on chip developments. We have experience in material development for UV imprinting and optical properties. We are also specialized in optical simulations, in development of sensors, microfluidic lab-on-chip devices and fabrication of optical microlenses, etc. Possible activities/ projects could be: <ul style="list-style-type: none"> <li>■ Development of mastering techniques and replication of lab on foil based chips</li> <li>■ Development and fabrication of outcoupling refractive structures or transparent heating elements for lab on chips</li> <li>■ Development of a foldable lab on chip device fabricated by means of roll to roll nanoimprinting</li> <li>■ Development of sensor chemistry or onchip amplification for lab on chip devices</li> <li>■ Simulation of optical elements and fabrication of those (microlenses, optical decorative elements ...)</li> <li>■ Inkjet printing in combination with other structuring techniques (3D printing, microimprinting, ...)</li> <li>■ Nanostructuring of surfaces with Laser ablation or laser structuring technologies</li> </ul>



Universidad del País Vasco Euskal Herriko Unibertsitatea

KOORDINAZIOAREN ETA NAZIOARTEKO HEDAKUNTZAKO ERREKTOREORDETZA  
VICERRECTORADO DE COORDINACIÓN Y RELACIONES INTERNACIONALES  
VICERECTORATE FOR COORDINATION AND INTERNATIONAL RELATIONS

COMPETENCES, SKILLS and EXPERIENCE REQUIREMENTS	
Requested profile(s) information (Studies, previous experience, language skills, other skills...)	Studies: mechanical engineering, biomedical engineering, physics or chemistry Language skills: English
Other commentaries	

## APPLICATION FORM 1


**GLOBAL  
TRAINING**

 **BasqueTrade  
& Investment**  
Agencia Vasca de Internacionalización  
Nazioartekotzeko Euskal Agentzia

GRUPO  
**spri**  
TALDEA

 **EUSKO JAURLARITZA  
GOBIERNO VASCO**  
EKOONOMIAEN GARAPEN  
ETA ABERTZURUA BAKA  
DEPARTAMENTO DE DESARROLLO  
ECONÓMICO E INFRAESTRUCTURAS

**INFORMATION ABOUT THE COMPANY/INSTITUTION**

<p>LOGO</p>	
<p>WEBSITE</p>	<p>Company: <a href="http://www.joanneum.at">www.joanneum.at</a>        Research Group: <a href="https://www.joanneum.at/en/materials">https://www.joanneum.at/en/materials</a></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 Hybrid Electronics and Patterning of the Institute MATERIALS of JOANNEUM RESEARCH Forschungsgesellschaft mbH is located in Weiz. Weiz is a small and nice city in the eastern part of Austria with approx 11.000 inhabitants (<a href="http://www.weiz.at">www.weiz.at</a>). It is 30 km in the North of Graz, the capital of the province of Styria. Many private accommodation in Weiz are available, but there is also public transport to Graz either by bus or by train every half hour (takes approx. 50 min), many of our students and co-workers live in Graz and commute by bus or train or in summertime by bike (quite hilly). Graz has a very active student social life (if Corona is not restricting) and also a quite large basque students community.</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. The 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. JOANNEUM RESEARCH networks with members of national and international scientific and research communities. It is a recognized 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 and Carinthia 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"> <li>• innovation</li> <li>• networking</li> <li>• knowledge transfer</li> </ul> <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 PLAKE</p>	<p>80</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. The Institute is dedicated to the applied materials research. Main activities include medical sensor development, development of materials for optical and imprinting purposes, simulation and prototyping of manifold applications.</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>A BRIEF EXPLANATION OF MAIN PROJECTS</p>	<ul style="list-style-type: none"> <li>• Large-scale production of organic layers (roll-to-roll, screen printing): any kind of structure (optical, biomimicing (gecko effect, lotus effect, ...), microfluidic channels</li> <li>• Microfluidic chip development: new layout design, mastering with several techniques (photolithography, e-beam lithography, grey scale laser lithography), master upscaling for R2R imprinting, R2R UV-NIL imprint, chip assembly</li> <li>• Green Photonics and Electronics</li> <li>• Structured (biomimetic) surfaces in the nanoscale: mastering up to large area replication via UV-Nanoimprint Lithography</li> <li>• Piezoelectric sensors and energy harvesters</li> <li>• (Optical) Chemo-and Biosensors</li> <li>• Laser Production Technology</li> <li>• Aerosol and inkjet printing</li> <li>• Laser and plasma-assisted vacuum deposition process</li> </ul>
<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.</p> <p>In the year 2018/2019 we also participated and Izar Gorroñoitia Uribarren was doing her internship. She left after 12 month for a research job in Basque country.</p> <p>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>	