

FASHION-TECH RESIDENCY
COMPETITION GUIDELINES

[POLITECNICO DI MILANO]

ET*alliance*

Programmes	Erasmus+ KA2: Cooperation for innovation and the exchange of good practices - Knowledge Alliances
Call for Proposal	EAC/A03/2018
Project Title	FTalliance. Weaving Universities and Companies to Co-create Fashion-Tech Future Talents
Acronym	FTall
Project Grant Agreement	612662
Project reference	612662-EPP-1-2019-1-IT-EPPKA2-KA - FTall

FT*alliance*

FASHION-TECH RESIDENCY

FULL PARTNERS



PAULINE VAN DONGEN



ASSOCIATE PARTNERS



Co-funded by the
Erasmus+ Programme
of the European Union

The information and views set out in this publication/website/study/report are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Fashion-Tech Residency competition Guidelines

Project introduction

FTalliance is a 3-year academia-industries partnership aimed to facilitate the exchange, flow of knowledge, and co-creation within the Fashion-Tech sector to boost students' employability and innovation potential. Fashion-Tech means new products, processes, tools, and professional figures that come about as a result of cross-disciplinary approaches. To keep up with this emerging field, there is an increasing urgency for organizations to adapt and advance collaborative practices, to find ways to integrate new technologies into fashion and design. In the long-term, the project aims at increasing the relevance, quality, and impactfulness of Fashion-tech innovations and also at enhancing the competitiveness of the European Fashion system at a global level revamping the industry through innovative practices.

Fashion-The Residency Competition

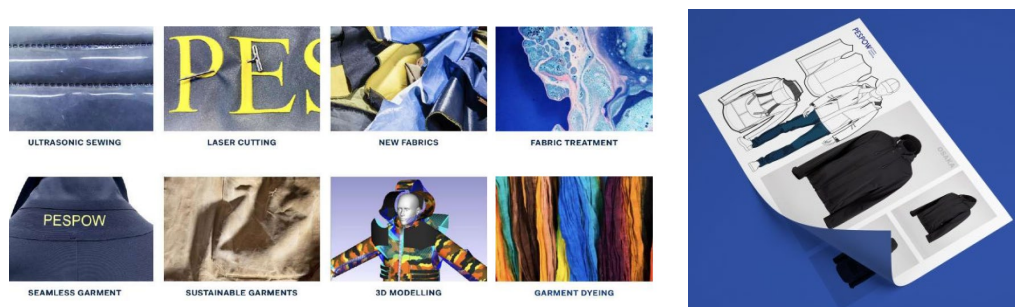
Within the FTalliance project, the Fashion-The Residency aims to explore co-creation opportunities between students, Fashion-Tech companies and Universities to foster innovative concept development and products prototypes. The Residency programme focuses on putting in place **co-creation opportunities for the students supported by the participating companies in collaboration with the Universities**. The Residency will include research, concept development and product prototyping activities. During the Fashion-Tech Residency, the selected students will be working with the companies, to exploit their expertise, skills, tools, in order to develop a Fashion-Tech product/service prototype.

The Competition Call will be launched by Politecnico di Milano and will stay open for **45 days**. This is giving enough time for students to select the challenges and to properly send their proposal that will conform to certain rules that are described below. A jointed committee will select **the best 5 proposals**, matchmaking the companies challenges with the students' proposed projects.

When selected, students will be working with and in the host company and would receive continuous mentoring and guidance both from supervisors from the host company and the belonging University. Partaking in the Fashion-Tech Residency means for students to conduct both the **curricular internship (with a minimum of 250 hours) along with working on the thesis (with a minimum of 6 months development)**. The expected duration and organization of the residency project depends on each specific Company's challenge and also on the agreement among host companies, students and University tutors (see next paragraph). At the end of the Residency period, the students should prepare and present a report documenting the activities and achievements of the programme, along with the thesis submission.

Challenges and Companies

3D MODELING OF A SPECIAL COLLECTION TOWARD CIRCULAR ECONOMY AND SUSTAINABILITY



Description

Digital and virtual fashion is nowadays transforming radically the manual and often handcraftsmanship-based methodology of pattern construction but also design, the mock-up, the prototyping, and the distribution, as well as the showcase and selling processes within a digital/virtual formula: 3D design, modelling, prototyping and 3D rendering and visualisation allow better visualization, simulation and prototyping in a digital world before becoming physical products with increased accuracy through enhanced design capabilities and possibly in a shorter timeframe. Furthermore, the process of designing digital garments has become more complex and engineered, including materials, geometry, manufacturing processes specifications that can be carefully defined beforehand, thus facilitating innovation and also sustainability. The project includes the creation of an archive of digital materials (recycled and eco-friendly materials) toward circular economy collections. The project also focus on the design and 3D Modelling of an outerwear collection of at least 6 styles with CLO 3D for Pespow's recycled collection.

Company: Pespow

Country: ITALY - S. Martino di Lupari (Padua)

Period of Residency in the Company: mid February – mid April 2022

Number of selected students: 1

Links: <https://fashiontechalliance.eu/en/pepow-digital-portfolio>

<https://fashiontechalliance.eu/en/pepow>

<https://www.pepow.com/en>

DESIGNING FULLY BIOBASED CLOTHING



Description

Biobased materials are gaining more and more interest from retail as well as from environmentally aware consumers. Biobased fabrics are entering the market often still finished, dyed or printed using conventional non-biobased products. There is a need to replace those by biobased or natural equivalents. Centexbel started with a feasibility study on this topic. In this student project, the goal is to work further on these first results regarding printing and dyeing of e.g. PLA, linen or cotton fabrics to optimize inks and dyebath and the final properties like strength, abrasion, wash resistance, fastness properties (rubbing, sweat, ...).

Company: Centexbel

Country: BELGIUM - Technologiepark in Zwijnaarde, Ghent

Period of Residency in the Company: Mid February – TBD (blended)

Number of selected students: 1

Links: <https://fashiontechalliance.eu/en/centexbel-digital-portfolio>

<https://fashiontechalliance.eu/en/centexbel>

<https://www.centexbel.be/en>

RETAIL OF THE FUTURE KPI'S



Description

Stentle is an innovative Italian startup founded in 2015 with the aim of providing its customers with tools and ideas to be able to tackle omnichannel initiatives in the world of retail. Stentle is able to accompany companies in all steps of the digital transformation process, from strategic planning, to experience design and technical implementation. To this end, the customer experience design is used to understand and adopt a customer centric approach, validate assumptions about what your customer want and need, design customer Journeys and related touchpoint, and design & test a Visual Prototype for the identified Customer Journeys. The implementation part is done leveraging Just Commerce, Stentle's proprietary Cloud platform to create Omnichannel Retail Solutions. The proposed student's project will study the current in-store "phygital" tools, focusing on the structure of the customer experience and the implemented technology. The candidate will be part of the International Team that is in charge of support Omnichannel Tools adoption through M-Cube Group and will work on real customer cases in the definition of up-to-date end-to-end Omnichannel customer experiences.

Company: Stentle (M-Cube Group)

Country: ITALY - Milan

Period of Residency in the Company: mid-February - mid-April 2022 (Blended)

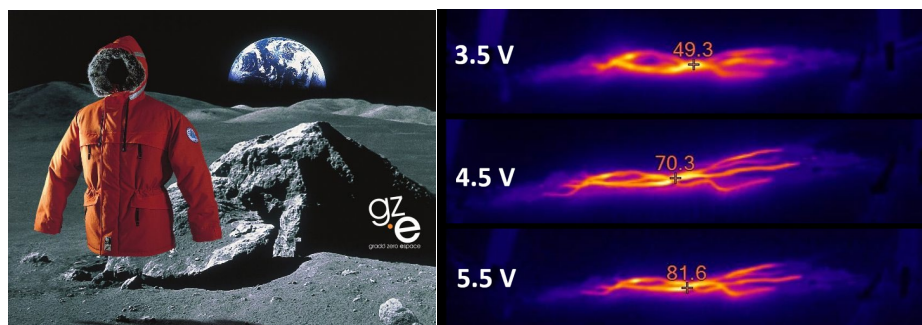
Number of selected students: 1

Links: <https://fashiontechalliance.eu/en/stentle-digital-portfolio>

<https://fashiontechalliance.eu/en/stentle>

<https://stentle.com/>

THERMAL MANAGEMENT SYSTEM



Description

The project would focus on developing an active heating system, to reach padded jackets thermal comfort (thermal insulation + breathing comfort). Based on the GradoZero (GZ) products line of 'Aerogel' jackets developed within a collaboration with ESA (European Space Agency), the project is aimed at adapting and updating a version of the that incorporates ADS, Aerogel Design System, a patented thermal insulation padding system, developed by GZ. Starting in the 90's with the concept of incorporating insulation fibres with Aerogel inside a padded wearable jacket, in 2003, GZI launched the 'Absolute Zero' jacket, developed to protect against harsh environmental conditions. With the same idea to test the Aerogel protection in extreme environments, the 'Absolute Frontiers' Parka was realized through the ADS technology based on the coating with a silica Aerogel of the padding fibres in an insulating blanket tested in Antarctica missions. The subsequent evolution of these products was coupling an active heating system to the passive thermal one by incorporating heating patches made of conductive yarns. The project is aimed at studying and adapting the existing products of the company, incorporating the Aerogel technology with active heating patches, considering the thermal requirements of the product and the related thermal comfort of the users.

Company: Grado Zero Innovation

Country: ITALY - Montelupo F.no, Tuscany - Firenze

Period of Residency in the Company: February – May 2022 (Blended)

Number of selected students: 1

Links: <https://fashiontechalliance.eu/en/grado-zero-digital-portfolio>

<https://fashiontechalliance.eu/en/grado-zero-innovation>

<https://www.gzinnoation.eu/>

SENSORISED TWIN-SET FOR ECG MEASURES



Description

The project is aimed at providing a 'smart' wearable twin-set (underwear shirt and a vest) able to allow cardiac measurements for workers, embedding electrocardiogram (ECG) sensors and using the platform BITalino that allows the connection of additional sensors and actuators: EEG, EDA, EMG, Accelerometers, Buzzers (audio monitoring), BTN, PRT, LUX (for light), DAC, LED, and so on. In the project, we foresee to use max two typologies of sensors, that means one additional measurement over the ECG. To record the electrical activity of the heart (ECG), the positioning of the electrodes and the contact of the electrodes with the skin on the underwear shirt are the main issues to be studied. The actual used ECG sensor is the BUNDLE-ECG-UCE6 BITalino ECG sensor (pre-assembled sensor for cardiac activity measurement).

Company: Grado Zero Innovation

Country: ITALY - Montelupo F.no, Tuscany - Firenze

Period of Residency in the Company: February – May 2022 (Blended)

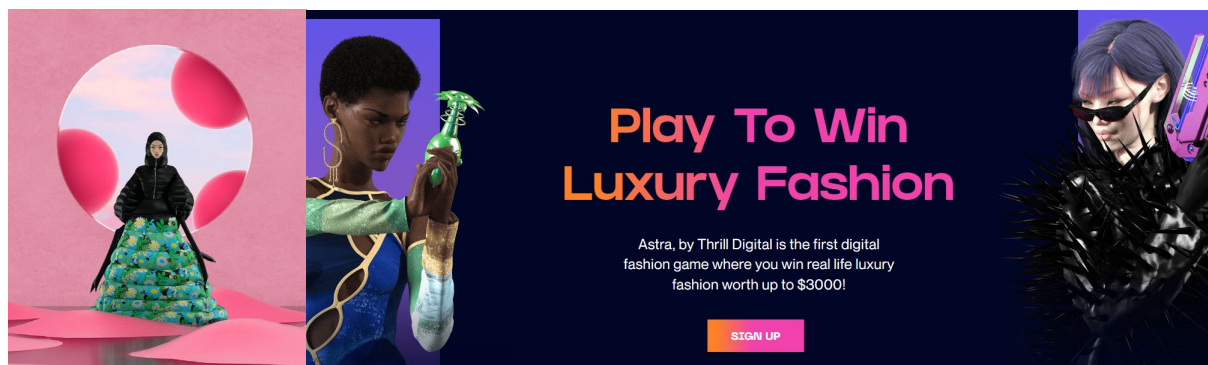
Number of selected students: 1

Links: <https://fashiontechalliance.eu/en/grado-zero-digital-portfolio>

<https://fashiontechalliance.eu/en/grado-zero-innovation>

<https://www.gzinnoation.eu/>

NEW DIGITAL FASHION EXPERIENCES FOR THE METAVERSE



Description

Astra is a blockchain based virtual world for Games, Metacommerce and Virtual events. Backed by Epic Games, the creators of fortnite and unreal engine. We are building a mini metaverse that solves real world problems starting with the gamification of the luxury shopping experience through a concept we invented called “fashion gaming” which is when a player gets a high score from playing and wins luxury fashion in real life. As we raise capital to expand from a fashion game to a mini-metaverse we want to bring on a talented designer, to join the team to research and design new experiences for the metaverse. This could range from new digital fashion that gives players super powers in the game, to new 3D experiences like shopping with your personalised avatar, to virtual events like 3D clubhouse/ twitter spaces experiences.

Company: Thrill Digital (Astra)

Country: Digital and some visits to UK – (London)

Period of Residency in the Company: Mid February – June 2022

(digital and in-presence meetings)

Number of selected students: 1

Links: <https://thrill.digital/>

<https://twitter.com/WelcomeToAstra/status/1438550989666201608?s=20>

Proposal submission details and submission procedures

The submission consists of three parts:

- a **written proposal** (filled and saved in pdf);
- a **recorded video-pitch** (provided link from a youtube or vimeo channel);
- a **short portfolio** (pdf or link to a digital online version)

The **written proposal** should cover the aim and objectives of the proposed research work, a brief reference to the literature, expected outcomes and novelty of the proposed work. In addition, a brief description of the main activities that will be performed during the residency period and an hypothesis of the timeline of these activities to be added to the written proposal. The applicant must use the project proposal template to develop the written proposal and convert it into PDF format for submission.

The **recorded video-pitch** aims at providing an opportunity to the applicant to explain the main parts of the proposals through a video-recorded message. The expected length of the recorded pitch is between 4-6 minutes. The applicant may use a PowerPoint presentation (whose template is given) to record the video pitch. The recorded pitch should be uploaded on YouTube and an access link to the video should be added to the written proposal.

The **short portfolio** of best previous works from the students should highlight the main skills and abilities along with the interest and attitudes of the student. The portfolio can be sent as a pdf file or as a link included in the written proposal.

Please keep all the pdf light, eventually compressing it and reducing its dimensions by using www.ilovepdf.com application on-line.

The PDF containing the project proposal and the portfolio (in case not online) will be submitted via email to fashiontechresidency@polimi.it by the proposal submission deadline.

For any query about the guidelines and the proposed challenges, please send an email to: daria.casciani@polimi.it You will receive an answer in 48 working hours.

Evaluation criteria and procedure

A jury consisting of members from academia and industry would evaluate the written submitted proposals, the video-recorded pitch and the portfolio of the candidates. The submitted proposals would be evaluated based on the following criteria:

- **Relevance** - relevance of proposal for the fashion-tech market needs. For example, how well the proposed project is aligned with the current industrial needs and challenges in the multidisciplinary field of fashion-tech. Besides, the adherence/alignment of students submitted ideas with project areas and challenges defined by the companies will be also evaluated.
- **Innovation potential/level** - how disruptive, radical and novel is the proposed work and related outcomes, and at what level these novelties are developed, e.g. from ideation to prototype building, testing and implementation.
- **Applicability potential/level** - how transferable are the outcomes of the proposed projects to the practical context in company, industry operations, and to the society. In addition, the contribution to knowledge mobilization in companies and/or actual application / commercialization of developed proofs of concepts and prototypes in 3-5 years
- **Degree of integration/collaboration** – how well the proposed work utilizes the collaboration of University and Companies for the realization of the residency project. In order to account for this criteria, preliminary project plan for implementation of project idea might need to be submitted by students as part of their proposal. To evaluate the proposed collaboration with companies, a plan of work during residency, including co-creation activities, can be provided by students.
- **Multidisciplinarity** - student project proposals that build on multidisciplinary approach requiring a combination of expertise and skills from different disciplinary, professional and functional domains would be favoured.
- **Entre-/intrapreneurship potential** - evaluation of pitching skills in terms of attractive presentation and communication of project ideas can be included as one of the criteria for selection of students project for residency as well as evaluation of developed projects, especially since residency aims to contribute to enhancing the entre-/intrapreneurship skills on behalf of students according to FTA project proposal description. In particular, students can reflect during their presentation/video submitted for the contest, how novel ideas can contribute to capabilities development and be converted into products and services for economic and social benefits.

Jury

The submitted proposals will be evaluated by a jury with members from the academia and industry. The list of members of the Jury will be provided and published on the platform prior to the deadline of the proposal submission.

Budget

Selected students will receive a reimbursement to travel costs, from their place of origin to the venue of the activity and return only for travel distances higher than 100 km up to 1999km. Besides, students will receive a contribution to subsistence costs such as accommodation, meals, local transport etc. up to a maximum reimbursement amount. Selected students must keep and provide all the supporting documentation in order to justify the expenses and receive the reimbursement. The documents (e.g. e-/Tickets, e-/Boarding passes, invoices of travel agencies, hotels, proof of payment of rents) should be presented to receive the reimbursement.

Expected outcomes and deliverables

Students' positive outcome of the Fashion-Tech Residency will be evaluated through a report that they should submit at the end of the residency period documenting the residency activities and processes and providing information about the project and achievements. This will provide information for their internship approval. An interview will be also made at the end of the experience.

Students will be also asked to work on their thesis in parallel to the activities of the internship, contacting the HEIs assigned tutor during the Residency period in the company and also later on. Students are expected to submit their thesis when ready to discuss it in front of the academic committee as a result of the residency programme.

Important dates and timeline

Open Fashion-Tech Residency Call: **1 December 2021**

Proposal submission deadline: **14 January 2022**

Announcement of the selected proposals / winning students: **21 January 2022**

Approximate start date of the residency projects: **14 February 2022**

End date of the residency projects (maximum): **30 June 2022**