

## BODYinTRANSIT

Sensory-driven Body Transformation Experiences On-the-move

### Ref. BODYinTRANSIT-Engineer:

### **Research Engineer/Technician Position in Sensorial Technologies and Inner Fashion Prototypes for Body Transformation Experiences**

The [Universidad Carlos III de Madrid](#) (UC3M) offers a full-time offers a research engineer/technician position for the Consolidator Grant Horizon2020 project **BODYinTRANSIT: Sensory-driven body transformation experiences on-the-move**.

**Overall description of the research group and project:** The successful candidate will join a new, diverse, multi-disciplinary and international research group led by [Prof. Ana Tajadura-Jiménez](#) and which combines perspectives of Human-Computer Interaction (HCI), Cognitive Neuroscience and Artificial Intelligence. The main research focus is on multisensory body perception and body-centred technologies that can alter people's body perception, behaviour, emotion and social identity. The research group is part of the [DEI Interactive Systems group](#) at the UC3M Department of Informatics.

BODYinTRANSIT is a multidisciplinary project that combines neuroscience research on multisensory body perception; data modelling of the links between body perception, behaviour, emotion and social functioning; wearable-based embodied multisensory interaction design; and field studies in real-life and on-the-move contexts with physically inactive users, somatic practitioners and users with body image concerns, all with the aim to investigate **sensory-driven body transformation experiences on-the-move**. The project addresses scientific questions from these different perspectives, with both quantitative and qualitative methods, and with both, scientific and outreach goals.

BODYinTRANSIT team is formed by HCI/computer scientists, psychologists and cognitive neuroscientists, data scientists, engineers, acousticians, philosophers, ethics experts, designers, professional dancers and clinical practitioners. The international research network for BODYinTRANSIT includes, among others, collaborations with University College London, Birkbeck - University of London, IRCAM - Paris, LMU - Munich, Tilburg University, Ritsumeikan University - Japan, and the Estonian Academy of Arts.

You can read more about the BODYinTRANSIT project and our current research in the following links:

The BODYinTRANSIT Project: <https://bodyintransit.eu/>

The Magicoutfit Project: [www.magicoutfit.com](http://www.magicoutfit.com)

The Magic Lining project (science-art project): <https://vertigo.starts.eu/calls/2017/residencies/magic-lining/detail/>

### **Job Description:**

The Research Engineer will report to and consult regularly with the group leader to decide on work priorities for the coming weeks on the basis of our commitments to the research project. The Research Engineer will also work closely with the other group members.

The Research Engineer will be trained on the equipment systems, including the sound and tactile stimulation system, motion capture, physiological measurement systems, and will contribute to the maintenance of and upgrades to these systems. In turn the Research Engineer will train students, postdocs and other researchers on how to use these systems. The Research Engineer will be also in charge of keeping an inventory of current equipment and on identifying resource needs, providing technical support to select and acquire new resources.

The Research Engineer will engage in modifying, assembling and creating custom engineering solutions and prototypes involving physical computing to meet novel research needs as they arise. The Research Engineer will contribute to data collection, organization and storage of large datasets generated in experiments. Further, the Research Engineer will

engage in complex data analysis and signal processing for motion capture and other physiological data, and work with students and researchers to define the best analysis processes for particular studies, keeping up to date with advances in the field. The Research Engineer will contribute to writing technical reports.

The Research Engineer will help testing human participants in some of these studies, and provide technical support at workshops, demos and other project-related activities. The Research Engineer will also contribute to coordinating outreach activities and to generating and maintaining content for online platforms and communication.

### Qualifications:

- BSc, Master's or PhD degree in Engineering or in a relevant field.
- Extensive experience with physical computing, wearable electronics, signal processing.
- Experience with sound technologies.
- Excellent programming skills.
- Excellent organizational and time management skills.
- Ability to and interest in quickly learn new techniques.
- Ability to adapt to changing requirements.
- Ability to think creatively and come up with novel solutions.
- Ability to work independently and as part of a collaborative research team.
- Decisive, imaginative, approachable and supportive.

### Plus:

- Experience in a related position.
- Extensive experience with sound technologies.
- Experience with motion capture.
- Experience with sound-movement interfaces or/and body-computer interfaces.
- Experience in designing/running human psychology experiments.
- Ability to write technical reports.
- Fluent in written and spoken English (particularly scientific language).
- Strong interpersonal skills to work effectively as part of a highly collaborative research team.
- Pro-active personality, detail focused.
- Experience in research outreach, organization of events, social media and scientific communication.

### What we offer:

- Total duration of the contract: 48 months, through renewable 1-year contracts.
- Annual gross salary in the range of 29500- 33000€, commensurate with qualifications.
- Start date: January 2022 (flexible).
- The position includes ad hoc training in specific research skills.
- Become part of a young, dynamic, highly qualified, collaborative team.
- Flexible working environment and schedule.
- Opportunity to travel to international venues for project related activities.
- Health coverage under the National Health System.

### Information

Enquiries can be made to Dr. Ana Tajadura-Jiménez, email: [atajadur@inf.uc3m.es](mailto:atajadur@inf.uc3m.es). Please use the following subject in your email: **"BODYinTRANSIT\_engineer\_family name of the applicant"**.

### How to apply:

Candidates are invited to send their application (in English) by e-mail to [atajadur@inf.uc3m.es](mailto:atajadur@inf.uc3m.es) with the following subject: “**BODYinTRANSIT\_engineer\_family name of the applicant**”. The deadline for applications is **15th October 2021** (though early applications are strongly encouraged; later applications will be considered until the vacancy is filled).

The following documentation should be attached in a single PDF file:

1. CV (up to 5 pages). Include here any experience in Research, Industry, Science communication, Science management, and a full publication list (if any).
2. 3 highlights in the CV, related to the project.
3. A letter of interest (up to 1 page), explaining why you want to join BODYinTRANSIT and what are your expectations; highlight your strong points.
4. 2 professional or academic recommendation letters (with contact details and email).

All candidates will have feedback with a message as proof of delivery. Top candidates will be invited to an individual online interview organized by UC3M. The final decision criteria will be based on merits (70%) and the interview (30%).

The Universidad Carlos III de Madrid hires on the basis of merit and is strongly committed to equity and diversity within its community. All qualified applicants are encouraged to apply, they will receive consideration for employment without regard to race, colour, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law. Note that if the successful applicant is neither a European citizen nor a permanent resident of Europe, he or she must be issued a work permit prior to commencing the position.

### Brief description of the institution:

Universidad Carlos III de Madrid (UC3M) is a state public university established in 1989. Its main goal is to provide specialised training in Engineering, Law and Social Sciences, Humanities, Communication and Library Science, as well as becoming a leading European research centre.

The University has five centres: 2 Faculties, 1 Technical School, 1 School of Graduate Studies and 1 Doctoral School within 4 Campuses. UC3M is divided in 28 Academic Departments, 28 University Research Institutes and 133 Research Groups. The University has 22.600 students, being similar in size to some of the major European universities, such as Paris II, Uppsala, Maastricht, Tilburg, Cambridge and Oxford. One out of five UC3M students are international. There are over 1200 doctoral students and near 2000 Faculty at UC3M.

UC3M has striven to make research a fundamental pillar of its activity in order to promote its teaching activity, attract talent and create new research areas. The UC3M is among the top Spanish universities for their participation in European level R&D&I programmes.