

Defence, Safety & Security Kampweg 55 3769 DE Soesterberg

www.tno.nl

Date 4 September 2023

P.O. Box 23, 3769 ZG Soesterberg

Attn. Mr. Bonneval

Subject Recommendation Sébastien Velut

Dear mister Bonneval,

As advisor of Sébastien Velut during his master's internship at TNO Soesterberg, the Netherlands, I was asked to write you a recommendation letter for the PhD position that he aspires. Given my experience with Sébastien, I am more than happy to do so.

Sébastien has been working in our lab from April up until September 2022. He mainly worked on a study where participants experienced emotions as induced by various paradigms, performed meditation, and were being treated by a practitioner from the alternative medicine circuit. Participants were being recorded using a range of sensors, including EEG, ECG, skin conductance, ultraweak biophoton emission sensors and an infrared camera. Research questions concerned the relation between these different mental states and the recorded signals. Sébastien contributed strongly to organizing and running these complex experiments. Regarding analysis, he focused on the infrared data of the face. We did not have a way yet to analyze these data automatically. Sébastien worked on extracting regions of interest with as little as possible required manual work. This involved searching, implementing and validating face tracking algorithms which do not normally work on infrared images. He searched the literature, extracted sensible variables, and performed statistics. He wrote a very good report, and left us with tools that will greatly facilitate our future studies with infrared face data.

Besides this main project, Sébastien was always happy to support TNO colleagues in other ways. In particular, he joined another project which was on food choice behavior. In this project, visitors were recorded at a three-day festival using skin conductance devices and questionnaires while they are watching a movie clip and tasting food. Sébastien was one of the (friendly and stress resilient) experiment leaders and did excellent work on the audio setup.

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I am very grateful to have had him in our team. Sébastien is strongly motivated, can work independently while also being a team player, he learns quickly, shows initiative and is a responsible and reliable person. Organizing an internship in the Netherlands, with all the social and logistic challenges that come with that, is one of the examples showing his endurance and enthusiasm to try new things. He is strong intellectually, technically and socially. I am absolutely convinced he will be an excellent and successful PhD-student. If you have any specific questions, do not hesitate to contact me.

Sincerely,

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Prof. Dr. Anne-Marie Brouwer

TNO Vertrouwelijk