Human Research Ethics Committee

University of Sydney

January 8th, 2016

Dear Sir or Madam

I wish to submit the proposed project **“AGENT-BASED SIMULATIONS OF STOCK MARKET USING A PRICE-FLUCTUATION GAMES MODEL”** for ethical review by the Human Research Ethics Committee of Sydney University:

The aim is to develop a realistic agent-based model of financial markets, applying the strategic game theory. With these purpose two well-defined parts are taking into account. The first one is related to developing an agent-based algorithm. The second part is referred to generate a web-based game which will allow actual people to take actions similar to a real stock market scenario; both of them will have an acceptable similitude to the stock market.

The web-based game, will include the participation of real people so, students of Sydney University will be asked to participate in this simulation. Two non-profit benefits should be offered to the students with the purpose of motivating them to take part in the study. Some drinks and snacks will be given to the participants after the running of the web-game and Free Latin-American dance classes will be offered by co-investigator Karina Arias Calluari, three months before the final test.

The purpose of offering free dance classes is to call the attention of the major quantity of students as possible. The study requires at least one hundred students playing the game on-line at the same time which will take approximately two hours of their time. It is well known that the majority of students do not have enough time during these periods. So, we are offering these free-dance classes (two hours per week) with the purpose of having more people interested in testing the game with the research team offering time to teach them how to dance and asking for their time to help us test the game.

All the information should be stored in a server at first time, and then the investigators will keep only the information which refers to the actions taken by the agents during the game. The rest of the information as personal details of the agents will be deleted once we will get the results of the test, until this happen all these personal information will be stored in a re-identifiable form. We estimate to get the final results of this test at the end of Semester I -2016.

The purpose to maintain in perpetuity the results is that this collected information by the investigators for this study could be used in future projects.

All the information as the records will be stored in a computer inside the School of Civil Engineering in which only the Chief investigator Dr. Fernando Alonso Marroquin should have access to the information.

I look forward to your kind attention to this matter and prompt approval of the project.

Yours sincerely

Karina Arias Calluari

Co-investigator

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