**2020 Summer Research Project Description**

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| **Project title:** | **Electrophysiological investigations of brain activity during social behaviour** |
| **Positions available:** | **Two positions available** |
| **Project duration and delivery** | Please outline the length of the project.     * Presence: 20 hours/week * Duration: 10 weeks * On-site attendance is required for this research project |
| **Description:** | In recent years, neuroscience has turned its focus to social behaviour, giving rise to a novel area of investigation called social neuroscience.  The current project address two questions in the field of social neuroscience. The first asks if the brain’s response to stimulation varies depending on the social environment. For this, a visual perception task will be carried out by participants who will receive different social cues regarding their performance in the task. Electrodes placed on the surface of the scalp will measure the electrical response (electro-encephalographic response) during the task.  The second question will examine how social distance affects the physiological (cardiac) and brain responses. Here, we intend to place viewers in virtual reality environment and present avatars at different distances while measuring the cardiac and electro-encephalographic response.  Students will be assigned to one of the two projects according to their motivation and interests. |
| **Expected outcomes and deliverables:** | Students will gain experience in setting up electrophysiological experimentation and carrying out data recordings using EEG techniques and/or electrophysiological (heart rate) measures.  They will be asked to participate in lab meetings and may be asked to present their experiment. |
| **Suitable for:** | This project is open to applications from students interested in physiological psychology and cognitive neuroscience. Students who have completed their BSc would benefit most from the position. Finally, one of the two positions would be appropriate for a student interested in 3D/virtual reality programming. |
| **Primary Supervisor:** | Associate Professor Alan Pegna. |
| **Further info:** | Please contact me at [a.pegna@uq.edu.au](mailto:a.pegna@uq.edu.au) for further information and prior to submitting an application. |