

Our research

The laboratory is equipped with the latest computer hardware and software (Matlab / E-prime / C++) for carrying out behavioural experiments. Computers are fitted with high-speed monitors for temporal precision and high-end graphics cards capable of supporting 3-dimensional image presentation with millisecond precision.

The laboratory also houses the latest in data acquisition devices for high level event-related psychophysiology (MP36R units from Biopac systems, USA).

These devices are low-noise, highly sensitive and are equipped with 24-bit A/D converters capable of sampling from each channel at a rate of 100,000 samples / per second. They are currently configured to measure (i) electrodermal activity / skin conductance responses (EDA / SCRs); detailed facial electromyography (fEMG); body-temperature signals (via finger electrodes); (iv) hand dynamometers for precise time-series signal measures of grip force, and; (v) Electroencephalography (EEG).

The DAQ device is driven by the latest Powerbook laptops fitted with quadro level or equivalent graphics cards and additional high-end RAM / memory specifications to support uninterrupted multiple signal measurements, detailed signal analysis, and large-file usage. These units are also fitted with the latest versions of signal analysis software packages from Biopac systems (AcqKnowledge).

Additional programming software (Biopac Basic Scripting) has been purchased and installed allowing the user to write their own algorithms / code specific to their experimental and analytical needs and facilitating the latest comprehensive analysis routines.

