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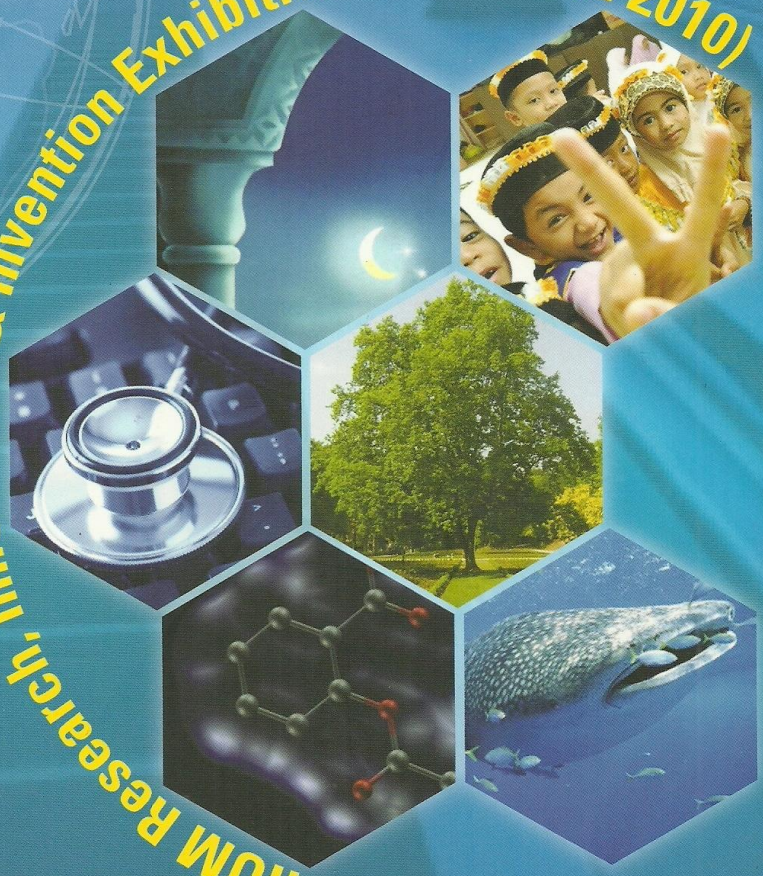

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cultivar, with the upstream region of DNA sequence contained of a guanine–rich core sequence (GGGCGG); enhancer (CCAAT); promoters (TATA box) and starting site (ATG). Our results showed the presence of genetic diversity among three Malaysian ginger cultivars by using microsatellites DNA.

P-43 Synthesis and Structural Studies of 2-[3-(4-methoxybenzoyl) thioureido]phenyl propionic acid and 2-[3-(4-methoxybenzoyl) thioureido]-3-(1H-indole-3-yl) propionic acid

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Two 4-methoxybenzoylthiourea of propionic acid namely 2-[3-(4- Two 4-methoxybenzoylthiourea of propionic acid namely 2-[3-(4-methoxybenzoyl)thioureido]phenylpropionic acid (I) and 2-[3-(4-methoxybenzoyl) thioureido]-3-(1*H*-indole-3-yl)propionic acid (II) have been successfully synthesized. The compounds were analyzed and characterized by elemental analysis, infrared spectroscopy and X-ray crystallography. Both compounds crystallized in orthorhombic crystal system with space group $P_{21\ 21\ 21}$, a = 5.0364(13) Å, b = 16.716(4) Å, c = 23.040(6) Å and Z = 4 and P_{bcn}, a = 18.247(4) Å, b = 14.083(3) Å, c = 14.736(3) Å and Z = 8, respectively. As in most carbonoylthiourea compounds, the molecules adopts *trans-cis* configuration with respect to the position of 4-methoxybenzoyl and the propionic acid moieties against the thiono S atom across their C-N bonds. Molecule (I) is associated with one methanol molecule as molecule of recrystalization.

P-44 Understanding Emotion: Cognitive Science Perspective

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Psychologist and neuroscientist have long tried to unlock the neural code of the humanâ€™s brain with intensive research carried out to model the brain for purpose of understanding human perception. The Electroencephalogram (EEG) signals can estimate the cortical activities using scalp potential measurements targeted at areas of interest and were used in this project to understand and analyze human perceptions rather than using expensive and bulky functional magnetic resonance imaging (fMRI) machine. These EEG signals were used to understand the location of brain activities for different affective states. In the project four basic emotions of happy, sad, fear and calm were detected and analyzed. Features were extracted based on the kernel density estimate (KDE) and Mel Frequency Cepstral Coefficient (MFCC). The Multi Layer Perceptron (MLP) is then used as classifiers to verify and identify the different emotions from the EEG signals both in Time and frequency domain. Experimental results show the potential of using these techniques to detect and analyze the four basic emotions from the EEG signals with reasonable accuracy. Many potential applications can be developed based on such novel technique in detecting and analyzing the emotion based on EEG signals.

P-45 Temperature Control Circuit for Surface Acoustic Wave (SAW) Resonators

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Surface Acoustic Wave (SAW) resonators are key components in oscillators, frequency synthesizers and transceivers. One of the drawbacks of SAW resonators are that its piezoelectric substrates are highly sensitive to ambient temperature, resulting in performance degradation. This work proposes a simple circuit design which stabilizes the temperature of the SAW resonator, making it independent of temperature change. The temperature control circuit consists of a comparator, temperature sensor and heater. Several different SAW resonators were tested using this circuit. Experimental results indicate that