



## 5 Marks of Distinction

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As a part of the effort to inspire research development, for 2009 five medals were won by CMLHS researchers. The Development of Human Chance Module and Biofeedback Remedy Kit to Improve Behavior among Mat Rempit won the silver medal in ITEX 2009 while the Biofeedback: A New Training Technology for Human Operator's Performance presented in Bio Malaysia won the bronze medal. Another two bronze medals were bagged in PECIPTA 2009 for the Pro Sai Kit and Biofeedback Training to Improve Students' Academic Performance and Smart Kit for Operators Performance. Another silver medal brought home was awarded during Seoul International Invention Fair (SIIF) through Smart Kit for Improving Boosting Operator's Performance.

### *Synopsis of Research Project*

#### **BIOFEEDBACK LEARNING KIT FOR OPERATOR'S COGNITIVE PERFORMANCE**

To perform effectively in work place, operators require concentration and vigilance — not just occasionally but at all time performing their task. However, Impeding or block factors such as stress, boredom, fatigue, and emotional instability inhibit operators' cognitive functions which which is a basis for their low performance. This research has come up with state-of-the-art kit to assist operators to improve cognitive and emotional performance using Biological Feedback (biofeedback) approach. The kit consists of biofeedback protocol, biofeedback device, training module for improving and sustaining operator's optimal physiological functions. The system is a combination of new technology and proven science based on heart rate variability (HRV) analysis. It is useful to boost operators' ability to handle their performance blocks by promoting homeostasis and autonomic nervous system. By using the kit, operators can enhance cognitive and emotional performance that will continue to improve their productivity