

## **PHATTANAPON RHIENMORA**

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### **CITIZENSHIP**

Thai

### **RESEARCH INTERESTS**

The main research interests focus on artificial intelligence, medical and dental informatics, intelligent tutoring system, virtual and augmented reality, computer graphics, haptics, and human-computer interaction.

### **ACADEMIC DEGREES**

**Ph.D. Candidate (Computer Science)** 2006 – May 2011(expected)  
School of Engineering and Technology, Asian Institute of Technology  
Dissertation: Virtual Reality Intelligent Dental Skill Trainer  
Advisor: Prof. Peter Haddawy  
Funding Source: National Electronics and Computer Technology Center

**Master of Engineering (Computer Engineering)** 2002 – 2004  
School of Advanced Technologies, Asian Institute of Technology  
Thesis: Personal Intelligent Spam Filter  
Advisor: Prof. Peter Haddawy

**Bachelor of Engineering (Computer Engineering)** 1996 – 2000  
Faculty of Engineering, Kasetsart University  
Senior Project: Network Seminar  
Advisor: Assoc. Prof. Siriporn Ongroungrueng

### **AWARDS AND HONORS**

- Gold Medal in World Cup of Computer Implemented Invention, International Federation of Inventor Association (IFIA), 2008
- Best paper award, South East Asia Association for Dental Education (SEAADE), 2009
- Special award for the best invention, Malaysian Invention and Design Society (MINDS), 2008
- Grand Prize, V.Research Competition, AIT, 2011
- Conference participation grant, AIT Alumni Association
- Royal Thai Government Scholarship, AIT, 2006

## PROFESSIONAL ACTIVITIES

- Reviewer, Journal of Dental Education
- Reviewer, Journal of Computing and Information Science in Engineering
- Reviewer, 13th Conference on Artificial Intelligence in Medicine, 2011
- Reviewer, 12th Conference on Artificial Intelligence in Medicine, 2009
- Reviewer, 11th Conference on Artificial Intelligence in Medicine, 2005
- Workshop, Intelligent Virtual Reality Haptic Device for Clinical Dentistry, Ministry of Science and Technology, 2009

## PROFESSIONAL SOCIETY MEMBERSHIPS

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)
- International Artificial Intelligence in Education Society
- IEEE Technical Committee on Haptics
- Dental Informatics Online Community
- Thai Biomedical Engineering Research Association

## TALKS / PRESENTATIONS

- Haptic Augmented Reality for Dental Training, National Science and Technology Fair, 2010
- Virtual Reality Dental Training Simulator, National Science and Technology Fair, 2009
- Intelligent Virtual Reality for Clinical Skill Training, NSTDA Annual Conference, 2008

## RESEARCH / TEACHING EXPERIENCES

<b>Guest Lecturer</b> Human Computer Interaction class, Asian Institute of Technology Topic: Haptics and Augmented Reality	2010, 2011
<b>Research Assistant / Software Developer</b> School of Engineering and Technology, Asian Institute of Technology Project: Collaborative Case Authoring Tool for COMET	2006
<b>Teaching Assistant</b> Introductory Programming Course, Faculty of Engineering, Kasetsart University	2000

## PUBLICATIONS

### Journal Articles

Suebnuakarn, S., Hataidechadusadee, R., Suwannasri, N., Suprasert, N., Rhienmora, P., & Haddawy, P. Access Cavity Preparation Training Using Haptic Virtual Reality and Microcomputed Tomography Tooth Models. To appear in *International Endodontic Journal*.

Rhienmora, P., Haddawy, P., Suebnukarn, S., & Dailey, M. N. Intelligent Dental Training Simulator with Objective Skill Assessment and Feedback. To appear in *Artificial Intelligence in Medicine*.

Suebnuakarn, S., Haddawy, P., Rhienmora, P., Jittimanee, P., & Viratket, P. (2010). Augmented Kinematic Feedback from Haptic Virtual Reality for Dental Skill Acquisition. *Journal of Dental Education*, 74 (12).

Rhienmora, P., Haddawy, P., Khanal, P., Suebnukarn, S., & Dailey, M. N. (2010). A Virtual Reality Simulator for Teaching and Evaluating Dental Procedures. *Methods of Information in Medicine*, 49 (4).

Suebnuakarn, S., Haddawy, P., Rhienmora, P., & Gajananan, K. (2009). Haptic Virtual Reality for Skill Acquisition in Endodontics. *Journal of Endodontics*, 36 (1).

Suebnuakarn, S., Phattanasatheinkul, N., Sombatveroj, S., Rhienmora, P., & Haddawy, P. (2009). Process and Outcome Measures of Expert /Novice Performance on a Haptic Virtual Reality System. *Journal of Dentistry*, 37 (9).

Rhienmora, P., Haddawy, P., Dailey, M. N., Khanal, P., & Suebnukarn, S. (2008). Development of a Dental Skills Training Simulator Using Virtual Reality and Haptic Device. *NECTEC Technical Journal*, 8 (20).

Suebnuakarn, S., Haddawy, P., & Rhienmora, P. (2008). A Collaborative Medical Case Authoring Environment Based on the UMLS. *Journal of Biomedical Informatics*, 41 (2).

### Conference Papers

Rhienmora, P., Gajananan, K., Haddawy, P., Dailey, M.N., & Suebnukarn, S. (2010). Augmented Reality Haptics System for Dental Surgical Skills Training. In *Proceedings of the 17th ACM Symposium on Virtual Reality Software and Technology (VRST 2010)*. Hong Kong, China.

Rhienmora, P., Gajananan, K., Haddawy, P., Suebnukarn, S., Dailey, M.N., Supataratarn, E., & Shrestha, P. (2010). Haptic Augmented Reality Dental Trainer with Automatic Performance Assessment. In *Proceeding of the 14th international conference on Intelligent user interfaces (IUI 2010)*. Hong Kong, China.

Rhienmora, P., Haddawy, P., Suebnukarn, S., & Dailey, M.N. (2009). Providing Objective Feedback on Skill Assessment in a Dental Surgical Training Simulator. In *Artificial Intelligence in Medicine, 12th Conference on Artificial Intelligence in Medicine (AIME 2009)*. Verona, Italy.

Rhienmora, P., Haddawy, P., Suebnukarn, S., & Dailey M.N. (2009). A VR Environment for Assessing Dental Surgical Expertise. In *Proceedings of the 14th International Conference on Artificial Intelligence in Education (AIED 2009)*. Brighton, UK.

Suebnukarn, S., Rhienmora, P., & Haddawy, P. (2007). A Collaborative Medical Case Authoring Environment Based on UMLS. In *Proceedings of the 7th IEEE International Conference on Advanced Learning Technologies (ICALT 2007)*. Niigata, Japan.

### **Abstracts**

Suebnukarn, S., Haddawy, P., Rhienmora, P., Jittimane, P., Viratket, P. (2010). Augmented feedback from haptic virtual reality for dental skill acquisition. The 88th IADR General Session & Exhibition. Barcelona, Spain.

Suebnukarn, S., Haddawy, P., Rhienmora, P., & Gajananan, K. (2009). Haptic virtual reality for clinical skill acquisition. In *Proceedings of the 20th South East Asia Association for Dental Education (SEAADE) Annual Scientific Meeting*. Chiang Mai, Thailand.

Suebnukarn, S., Phattanasatheinkul, N., Sombatveroj, S., Rhienmora, P., Khanal, P., Haddawy, P., Dailey, M.N. (2009). A Process-Outcome Study of Expert and Novice Clinical Performance. The 87th IADR General Session & Exhibition. Miami, USA.

Rhienmora, P., Haddawy, P., Dailey, M. N., Khanal, P., & Suebnukarn, S. (2008). Development of a Dental Skills Training Simulator Using Virtual Reality and Haptic Device. NECTEC Annual Conference & Exhibition (NECTEC-ACE 2008). Bangkok, Thailand.