

# Mores Prachyabrued

## Address

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## Research Interests

Virtual Reality, 3D Interaction, Virtual Grasping, Virtual Training, Entertainment Computing

## Professional Experience

Instructor, Faculty of ICT, Mahidol University, since Dec 2013

Director of ImmerSense Laboratory, Mahidol-Bremen Medical Informatics Research Unit, since Feb 2018

Program Chair, Master of Science in Game Technology and Gamification, Mahidol University, since 2014

Faculty Senate Representative, Faculty of ICT, Mahidol University, since 2017

Assistant Dean for Digital Media Technology and Learning, Faculty of ICT, Mahidol University, 2014 – 2017

Solution Specialist 2, Total Access Communication PCL Co., Ltd., 2000 – 2005

## Education

Ph.D. (Computer Science), University of Louisiana at Lafayette, 2013

M.S. (Computer Science), University of Louisiana at Lafayette, 2007

M.E. (Computer Engineering), Kasetsart University, 2002

B.E. (Computer Engineering), Kasetsart University, 1998

## Selected Honors

Winner, Innovation for Defence Technology Contest, 2017 (Advisor)

Runner-Up of the Applications for Promoting Learning Skills Category (โปรแกรมเพื่อส่งเสริมทักษะการเรียนรู้), National Software Contest, 2017 (Advisor)

US Embassy People's Choice Award, Microsoft Imagine Cup Thailand, 2016 (Advisor)

Runner-Up Best Paper, IEEE 3D User Interfaces, 2011

Winner of the Computer Thai Chess Competition, National Software Contest, 2000

### **Selected Professional Service**

Reviewer: IEEE VR, IEEE 3D User Interfaces, ACM SIGCHI Advances in Computer Entertainment Technology, ACM SIGCHI Designing Interactive Systems

Visiting Researcher, Computer Graphics and Virtual Reality Research Group, University of Bremen, February 2017

Curriculum Reviewer for the Bachelor of Business Administration in Game and Esport Business, University of the Thai Chamber of Commerce, 2017

Organizing Committee, 13th Thailand Olympiad in Informatics, 2016-2017

Committee, Defence Technology Association, 2015-2017

Curriculum Reviewer for the Bachelor of Science in Games and Interactive Media, Bangkok University, 2016

Special Session Chair, The 1<sup>st</sup> Asian Conference on Defence Technology, 2015

### **Selected Research Grants**

Office of the Higher Education Commission, 3D Training Field of Army Tactical Training Center, 2018–2019, 2,920,000 Baht (Co-researcher)

Mahidol University, A Virtual Reality Method for Stress Inoculation Training of Prehospital Healthcare Personnel, 2017–2018, 125,000 Baht **(PI)**

Mahidol University, Development of a SPOC Online Lesson on the MUx System: Business Writing (โครงการพัฒนามาตรเรียนออนไลน์แบบ SPOC ภายใต้ระบบ MUx), 2017–2018, 100,000 Baht **(PI)**

Office of the Higher Education Commission, Geo-database for Military and Security, 2016–2017, 3,800,000 Baht (Co-researcher)

Mahidol University, Development of a SPOC Online Lesson on the MUx System: Computer Applications, 2016–2017, 150,000 Baht **(PI)**

Defence Technology Institute, Development of a Computer-Assisted Instruction System for Military Weapons and Strategies (โครงการพัฒนาระบบสื่อคอมพิวเตอร์ช่วยสอนระบบอาวุธและยุทธวิธีทหาร สำหรับโครงการวิจัยและพัฒนาระบบสนามฝึกยิงปืนยุทธวิธีเสมือนจริง), 2014–2015, 2,300,000 Baht **(PI)**

BFKT Thailand, Design and Evaluation of a Chatbot for Customer Services, 2014–2015, 100,000 Baht **(PI)**

### **Selected Invited Talks and Keynote Addresses**

Technology-Enhanced Learning Seminar, “Game Technology and Gamification”, Institute for Innovative Learning, Mahidol University, Aug 2018

MU-Bremen Symposium on ICT in Medicine and Public Health, “Virtual Reality Method for Stress Inoculation Training of Prehospital Healthcare Personnel”, Faculty of ICT, Mahidol University, Feb 2018

## Publication Statistics

Journal Articles: 4

Conference Papers: 12

Citations: Google Scholar: 189 with h-index of 9

Scopus: 76 (excluding self-citations) with h-index of 5

**Selected Publications** (Full publication list: <http://mucc.mahidol.ac.th/~mores.pra>)

**M. Prachyabrued**, D. Wattanadhirach, R. B. Dudrow, N. Krairojananan, and P. Fuengfoo. Toward Virtual Stress Inoculation Training of Prehospital Healthcare Personnel: A Stress-Inducing Environment Design and Investigation of an Emotional Connection Factor. *To Appear in Proceedings of IEEE Virtual Reality and 3D User Interfaces*, 2019.

P. Mongkolwat, **M. Prachyabrued**, T. Siriapisith, and T. K. Shih. A Perspective on the Needs for Simulation and Gaming Technology in Outpatient Care. *To Appear in Neo-Simulation and Gaming Toward Active Learning (Lecture Notes in Computer Science)*, 2019.

**M. Prachyabrued** and O. Robert. Development of Attack Helicopter Simulator. *Proceedings of the 5<sup>th</sup> Asian Conference on Defence Technology*, pp. 31-36, 2018.

**M. Prachyabrued** and C. W. Borst. Design and Evaluation of Visual Interpenetration Cues in Virtual Grasping. *IEEE Transactions on Visualization and Computer Graphics*, 22(6):1718-1731, Jun 2016.

**M. Prachyabrued** and C. W. Borst. Visual Feedback for Virtual Grasping. *Proceedings of IEEE 3D User Interfaces*, pp. 19-26, 2014. **(Top 4 Best Papers)**

**M. Prachyabrued** and C. W. Borst. Effects and Optimization of Visual-Proprioceptive Discrepancy Reduction for Virtual Grasping. *Proceedings of IEEE 3D User Interfaces*, pp. 11-14, 2013.

C. W. Borst and **M. Prachyabrued**. Nonuniform and Adaptive Coupling Stiffness for Virtual Grasping. *Proceedings of IEEE Virtual Reality*, pp. 35-38, 2013.

**M. Prachyabrued** and C. W. Borst. Virtual Grasp Release Method and Evaluation. *International Journal of Human-Computer Studies*, 70(11):828-848, Nov 2012. **(Invited)**

T. L. Chambers, A. Aglawe, D. Reiners, S. A. White, C. W. Borst, **M. Prachyabrued**, and A. Bajpayee. Real-Time Simulation for a Virtual Reality-Based MIG Welding Training System. *Virtual Reality Journal*, 16(1):45-55, Mar 2012.

**M. Prachyabrued** and C. W. Borst. Visual Interpenetration Tradeoffs in Whole-Hand Virtual Grasping. *Proceedings of IEEE 3D User Interfaces*, pp. 39-42, 2012.

**M. Prachyabrued** and C. W. Borst. Dropping the Ball: Releasing a Virtual Grasp. *Proceedings of IEEE 3D User Interfaces*, pp. 59-66, 2011. **(Runner-Up Best Paper, Cover Image)**

S. A. White, **M. Prachyabrued**, T. L. Chambers, C. W. Borst, and D. Reiners. Low-Cost Simulated MIG Welding for Advancement in Technical Training. *Virtual Reality Journal*, 15(1):69-81, Mar 2011.

**M. Prachyabrued**, D. Ducrest, and C. W. Borst. Handymap: A Selection Interface for Cluttered VR Environments Using a Tracked Hand-held Touch Device. *Proceedings of International Symposium on Visual Computing*, pp. 45-54, 2011.

**M. Prachyabrued**, T. E. Roden, and R. G. Benton. Procedural Generation of Stylized 2D Maps. *Proceedings of ACM SIGCHI Advances in Computer Entertainment Technology*, pp. 147-150, 2007.