Curriculum Vitae

Assistant Professor Dr. Worawat Choensawat

Position: Lecturer, School of Information Technology and Innovation, Bangkok University
Vice-Chair in IEEE Entertainment and Gaming Technical Committees, The Consumer Technology Society (CTSoc)

Working address: 9/1 Phahonyothin Rd, Khlong Nueng, Khlong Luang District, Pathum Thani 12120, THAILAND
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Research Interest: Artificial Intelligent, Graphics system for human body movement, Data mining, Motion capture, Multimedia, Computer Simulation

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Education:

2009 – 2012	**Ph.D. in Engineering**, School of Science and Engineering, Ritsumeikan University, Shiga, Japan. Dissertation: *Integrated Dance Body Motion Archiving Using Dance Notation and Motion Capture.*
2000 – 2002	**M.Sc. in Information Science**, King Mongkut's Institute of Technology Ladkrabang (KMIT'L), Bangkok, Thailand.
1995 – 1999	**B.Sc. in Civil Engineering**, King Mongkut's Institute of Technology Ladkrabang (KMIT'L), Bangkok, Thailand.

Honor Award:

2021	**Gold Prize** IEEE GCCE 2021 Excellent Demo! Award "Toward a PCG-Driven 3D Game for Preclinical Detection of Dementia"
2018	3rd place in the IEEE GCCE2018 Excellent Demo Award for "Application of YOLO Deep Learning Model for Real Time Abandoned Baggage Detection"
2015	"Outstanding Reseracher" from School of Science and Technology, Bangkok University in Academic Year 2014
2011	Bursary Winners Award from Alliance of Digital Humanities Organisations in 2011 (Digital Humanities 2011 at Stanford University, USA, in the presentation of "*A Labanotation Editing Tool for Description and Reproduction of Stylized Traditional Dance Body Motion*".

Competition:

2014	2nd place winner in the IEEE CIG2014 Fighting Game AI Competition

Grants and Scholarships:

Doctoral Program, Ritsumeikan University

2010	Full Tuition scholarship 500,000yen.
2010	CREOTECH Scholarship Program for 2010 (Scholarship Programs for International Student in Doctoral Degree) 250,000yen
2011	Half Tuition scholarship 250,000yen.
2011	CREOTECH Scholarship Program for 2011 (Scholarship Programs for International Student Doctoral Degree) 250,000yen

Global COE program in Digital Humanities Center for Japanese Arts and Cultures

2009 -2011 Research Grant for Research Assistant type 1 total of 3,000,000yen

National Research Council of Thailand

2015 Research for enhancing the learners' capability in traditional dances and performing arts, and preserving Thai culture: RDG5840034 **(หัวหน้าโครงการ)**

2013 Detection of Malicious Code on Mobile Operating Systems
National Research Council of Thailand: 2556NRCT52002 No. 89086
(ผู้ร่วมวิจัย)

Broadcasting and Telecommunications Research and Development Fund for Public Interest

2017 การสร้างความตระหนักรู้ให้กับประชาชนเกี่ยวกับภัยคุกคามและอาชญากรรมไซเบอร์ **(หัวหน้าโครงการ)**

2016 ระบบการตรวจจับและเตือนภัยแอปพลิเคชันอันตรายบนอุปกรณ์เคลื่อนที่
(ผู้ร่วมวิจัย)

ทุนวิจัยด้านยุทโธปกรณ์เพื่อเพิ่มศักยภาพของกองทัพและการป้องกันประเทศ

2020 ระบบจำลองการฝึกจำแนกอากาศยานด้วยเทคโนโลยีความจริงเสมือน
(หัวหน้าโครงการ)

2019 การปรับปรุงระบบส่วนการแสดงผลข้อมูลระบบเรดาร์ DR-172 ADV
(ผู้ร่วมวิจัย)

Publications:

Journals

2018 Paliyawan, P., **Choensawat, W**., & Thawonmas, R. (2018). Mossar: motion segmentation by using splitting and remerging strategies. Multimedia Tools and Applications, 77(21), 27761-27788. (Impact Factor 2.101)

2018 Sachdeva, S., Jolivot, R., & **Choensawat, W**. (2018). Android Malware Classification based on Mobile Security Framework. IAENG International Journal of Computer Science, 45(4).

2016 **Choensawat, W**., Nakamura, M., & Hachimura, K. (2016). Applications for recording and generating human body motion with Labanotation. In Dance Notations and Robot Motion (pp. 391-416). Springer International Publishing.

2015 Lin, Frank C., Kingkarn Sookhanaphibarn, **Worawat Choensawat**, George Pararas-Carayannis. “On the frequency spectrum tsunami radiation”, Science of Tsunami Hazards (ISSN 8755-6839), Vol.34, No.3, 2015.

2014 **Choensawat, W.,** Nakamura, M., & Hachimura, K. (2015). GenLaban: A tool for generating Labanotation from motion capture data. Multimedia Tools and Applications, 74(23), 10823-10846. (Imapct Factor: 1.058)

2014	Chonthorn Ariyapitipan and **Worawat Choensawat**: An Interactive Visualization System for Effective Senior Project Selection, International Journal of Digital Content Technology and its Applications, Vol. 8, No. 3, pp. 118-125
2013	**Worawat Choensawat** and Piruna Polsiri: Financial Institution Failure Prediction using Adaptive Neuro-Fuzzy Inference Systems: Evidence from the East Asian Economic Crisis, Journal of Advanced Computational Intelligence and Intelligent Informatics, Vol.17, No.1, pp.83-92
2012/06	**Worawat Choensawat** and Kozaburo Hachimura: Autonomous Dance Avatar for Generating Stylized Dance Motion from Simple Dance Notations, The Journal of the Institute of Image Electronics Engineers of Japan, Vol.41 No.4, pp. 366–370, 2012
2012/01	**W. Choensawat**, Woong Choi, and Kozaburo Hachimura, "Similarity Retrieval of Motion Capture Data Based on Derivative Features", Journal of Advanced Computational Intelligence and Intelligent Informatics, Fuji Technology Press, Vol.16, No.1, January 2012, pp. 13-23
2010/09	**W. Choensawat**, Sachie Takahashi, Minako Nakamura, Woong Choi, and Kozaburo Hachimura, "Description and Reproduction of Stylized Traditional Dance Body Motion by Using Labanotation", Transactions of the Virtual Reality Society of Japan, Vol.15, No.3, September 2010, pp.379-388
2007/03	K. Sookhanaphibarn, P. Polsiri, **W. Choensawat**, Application of neural networks to business bankruptcy analysis in Thailand, International Journal Computational Intelligence Research, Volume/Issue, 3/1 2007, pp. 91-96

International Conferences & Proceedings

2022	Munmanothum, T., **Choensawat, W**., & Sookhanaphibarn, K. (2022, March). Visual Representation Enhancement of Aircraft Recognition Training System in Virtual Reality. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 542-543). IEEE.
2022	Khajangthon, T., **Choensawat, W**., & Sookhanaphibarn, K. (2022, March). Visual Aircraft Recognition Training via Web Application. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 540-541). IEEE.
2022	Tirasatian, B., Rattanaprueksachart, A., **Choensawat, W**., & Sookhanaphibarn, K. (2022, March). School Bus Platform for Integrating in a School Van to Avoid Trapped Kindergarten Students. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 439-440). IEEE.
2022	Khamlae, P., Sookhanaphibarn, K., & **Choensawat, W**. (2022, March). Document Image Analysis of Salary Payslips. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 154-155). IEEE.
2022	Boonparn, P., Bumrungsook, P., Sookhnaphibarn, K., **& Choensawat, W.** (2022, March). Social Data Analysis on Play-to-Earn Non-Fungible Tokens (NFT) Games. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 263-264). IEEE.
2022	Nimpattanavong, C., **Choensawat, W**., & Sookhanaphibarn, K. (2022, March). Action Prediction of AI Bot in FightingICE by using Deep Learning Model. In *2022 IEEE 4th Global Conference on Life Sciences and Technologies (LifeTech)* (pp. 259-262). IEEE.
2021	Khamlae, P., Sookhanaphibarn, K., & **Choensawat, W.** (2021, March). An application of deep-learning techniques to face mask detection during the COVID-19 pandemic. In *2021 IEEE 3rd global conference on life sciences and technologies (LifeTech)* (pp. 298-299). IEEE.

2020	Sookhanaphibarn, K., & **Choensawat, W.** (2020, October). Educational Games for Cybersecurity Awareness. In *2020 IEEE 9th Global Conference on Consumer Electronics (GCCE)* (pp. 424-428). IEEE.
2020	Nimpattanavong, C., Khamlae, P., **Choensawat, W**., & Sookhanaphibarn, K. (2020, October). Flight Traffic Visual Analytics during COVID-19. In 2020 IEEE 9th Global Conference on Consumer Electronics (GCCE) (pp. 215-217). IEEE.
2020	Khamlae, P., Nimpattanavong, C., **Choensawat, W**., & Sookhanaphibarn, K. (2020, October). Visualization System for Air Traffic data. In 2020 IEEE 9th Global Conference on Consumer Electronics (GCCE) (pp. 213-214). IEEE.
2020	Jumneanbun, T., Sae-Lao, S., Paliyawan, P., Thawonmas, R., Sookhanaphibarn, K., & **Choensawat, W**. (2020, August). Rap-Style Comment Generation to Entertain Game Live Streaming. In 2020 IEEE Conference on Games (CoG) (pp. 706-707). IEEE.
2019	**Choensawat, W**., & Sookhanaphibarn, K. (2019, October). Aircraft Recognition Training Simulator using Virtual Reality. In *2019 IEEE 8th Global Conference on Consumer Electronics (GCCE)* (pp. 47-48). IEEE.
2018	Santad, T., Silapasupphakornwong, P., **Choensawat, W.,** & Sookhanaphibarn, K. (2018, October). Application of YOLO deep learning model for real time abandoned baggage detection. In 2018 IEEE 7th Global Conference on Consumer Electronics (GCCE) (pp. 157-158). IEEE.
2018	Sookhanaphibarn, K., Phukongchai, W., Santad, T., & **Choensawat, W**. (2018, October). Towards bilateral upper-limb rehabilitation after stroke using Kinect game. In 2018 IEEE 7th Global Conference on Consumer Electronics (GCCE) (pp. 818-819). IEEE.
2017	Ballas, A., Santad, T., Sookhanaphibarn, K., & Choensawat, W. (2017, October). Game-based system for learning labanotation using Microsoft Kinect. In 2017 IEEE 6th global conference on consumer electronics (GCCE) (pp. 1-3). IEEE.
2016	Sookhanaphibarn, T., & **Choensawat, W**. (2015). Standardized Test System of Health-related Physical Fitness for Thai College Students. Procedia Manufacturing, 3, 1527-1534.
2016	Sookhanaphibarn, K., **Choensawat, W**., Paliyawan, P., & Thawonmas, R. (2016, October). Virtual reality of fire evacuation training in 3D virtual world. In 2016 IEEE 4th Global Conference on Consumer Electronics (GCCE) (pp. 323-325).
2015	Paliyawan, P., Sookhanaphibarn, K., **Choensawat, W**., & Thawonmas, R. (2015, October). Towards universal kinect interface for fighting games. In Consumer Electronics (GCCE), 2015 IEEE 4th Global Conference on (pp. 332-333). IEEE.
2013/08	Paireekreng, W., & **Choensawat, W**. (2015). An ensemble learning based model for real estate project classification. Procedia Manufacturing, 3, 3852-3859.
2013/07	Kingkarn Sookhanaphibarn, **Worawat Choensawat**, Chommanad Kijkhun, and Kozaburo Hachimura. “Toward a New Educational Tool for Thai Dance”, The 28th Biennial Conference of the International Council of Kinetography Laban/Labanotation, York University, Toronto, Canada, July 31 to August 7, 2013
2012/11	**Worawat Choensawat**, Kingkarn Sookhanaphibarn, Chommanad Kijkhun, and Kozaburo Hachimura: Desirability of a Teaching and Learning Tool for Thai Dance Body Motion, In Proc. of International Conference on Human-Computer Interaction 2013, Las Vegas, Lecture Notes in Computer Science, Vol. 8013, pp. 171–179, 2013
	Minako Nakamura, **Worawat Choensawat**, Kozaburo Hachimura: "The evaluation of LabanEditor3 from a dance researcher's perspective: the

	case study of Classical Ballet in Labanotation class", Jinmonkon2012 (The computers and the humanities 2012), IPSJ Symposium Series Vol. 2012, No.7, pp. 111-116, Hokkaido University, Japan
2012/08	**W. Choensawat,** S. Takahashi, M. Nakamura, and Kozaburo Hachimura and K. Hachimura: "LabaNOHtation: Laban meets Noh", SIGGRAPH 2012, USA, ISBN978-1-4503-1435-0/12/0008, 2012(8)
2012/02	**W. Choensawat** and K. Hachimura: "Generating Stylized Dance Motion from Labanotation by Using an Autonomous Dance Avatar", In Proceedings of International Conference on Computer Graphics Theory and Applications, GRAPP2012, Rome, Italy, pp. 535-542, Feb 24-26, 2012
2011/10	**W. Choensawat**, S. Takahashi, M. Nakamura, and K. Hachimura: "The Use of Labanotation for Choreographing a Noh-Play", In Proceedings of International Conference on Culture and Computing 2011, Kyoto, Japan, pp. 167- 168, October 20-22, 2011.
2011/06	**W. Choensawat**, S. Takahashi, M. Nakamura, and K. Hachimura: "A Labanotation Editing Tool for Description and Reproduction of Stylized Traditional Dance Body Motion", Abstracts of Digital Humanities 2011 (DH2011), Stanford, USA, pp. 296- 299, June 19-22, 2011.
2010/06	**W. Choensawat**, W. Choi, K. Hachimura , “Realistic Expression of Body Motion and Environments in LabanEditor”; Nicograph International, Singapore, 2010., 2010/6/18-2010/6/19, pp. 49-51.
2010/03	**W. Choensawat**, W. Choi, H. Sekiguchi, and K. Hachimura, “Improved Segmentation of Motion Capture Data using SMOTE”; Proceedings of the IIEEJ Image Electronics and Visual Computing Workshop, Nice, France, 2010,2010/3/5 – 2010/3/7, 4 pages.
2009/12	**W. Choensawat**, W. Choi, and K. Hachimura: A Quick Filtering for Similarity Queries in Motion Capture Databases; Bangkok, Thailand, Lecture Notes in Computer Science, Volume 5879, Springer Verlag, pp. 404 – 415, 2009
2009/12	**W. Choensawat**, K. Hachimura : Segmentation of Motion Capture Data Using Neural Networks; International Conference of Digital Archives and Digital Humanities 2009, 2009/12/1 – 2009/12/2, National Taiwan University – Taipei, Taiwan.
2007/06	Lakesha L. Ruffin, Frank C. Lin, **Worawat Choensawat**, Worapat Prireekreng, Kingkarn Sookhanaphibarn: Diagnosis of Children with ADD/ADHD using a Recurrent Hopfield Net; The Third Shanghai International Symposium on Nonlinear Sciences and Applications (Shanghai NSA'07)
2006/10	K. Sookhanaphibarn, P. Polsiri, **W. Choensawat**, and F. C. Lin "Application of Neural Networks to Business Bankruptcy Analysis in Thailand", Proceedings of The 13th International Conference on Neural Information Processing (ICONIP'06), October 2-6, 2006.
2006/09	**W. Choensawat**, P. Polsiri, and K. Sookhanaphibarn, "Predicting Financial Institution Failure with Financial and Ownership Variables using Logit and Neural Networks: Evidence from the East Asian Crisis",Proceedings of Joint 3rd International Conference on Soft Computing and Intelligent Systems and 7th International Symposium on advanced Intelligent Systems, (SCIS&ISIS'06), September 20-24, 2006.

National Proceedings

2010/12	**W. Choensawat**, S. Takahashi, M. Nakamura, and K. Hachimura: "Description and Reproduction of Noh Body Motion by Using Labanotation", Jinmonkon2010, IPSJ Symposium Series Vol. 2010, No.15, pp. 285-290, Japan

Academic Workshop

2014/11	**W. Choensawat**, M. Nakamura, and K. Hachimura: " Autonomous Dance Avatar for Generating Stylized Dance Motion from Simple Dance Notations", 1st Workshop of Dance Notation and Robot Motion, LAAS-CNRS, Toulouse, France
2010/10	**W. Choensawat**, W. Choi, and K. Hachimura: " Data Filtering with Minimal Bounding Envelope for Similarity Retrieval of Motion Capture Data", The 6th Joint Workshop on Machine Perception and Robotics (MPR2010), Kyushu University Ito Campus, Japan, 2010 (Poster)
2010/09	**W. Choensawat**, S. Takahashi, M. Nakamura, W. Choi, and K. Hachimura: "Description and Reproduction of Stylized Traditional Dance Body Motion by Using Labanotation", The BUAA-Ritsumeikan Workshop on Computer Science and Technology, Beihang University, China, 2010 (Poster)

International Symposiums

2011/01	**W. Choensawat**, Sachie Takahashi, Minako Nakamura, Woong Choi, and Kozaburo Hachimura, "Description and Reproduction of Stylized Traditional Dance Body Motion with LabanEditor", International Symposium of Human Body Motion Analysis with Motion Capture, Jan 29, 2011, Ritsumeikan University, Kinugasa campus, Japan
2010/01	**W. Choensawat**, W. Choi, and K. Hachimura, "A Retrieval System for Similarity Queries in Motion Capture Databases", International Symposium of Human Body Motion Analysis with Motion Capture, Jan 23, 2010, Ritsumeikan University, Biwako campus, Japan