NENG-HAO YU
余能豪 *(JONES)*

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No.43, Keelung Rd., Sec.4,
Taipei City 106335, Taiwan

Research Interests

Human-Computer Interaction	Tangible UI & Multi-touch Interactions
User Experience Design	Virtual/Mixed Reality

Education

Ph.D. in Computer Science — *Sep. 2007 - Jun. 2011*
Graduate Institute of Networking and Multimedia
National Taiwan University, Taiwan (Advisor: Dr. Yi-Ping Hung)

M.A. in Digital Media Design — *Sep. 1998 - Jun. 2001*
Department of Information Communication
Yuan Ze University, Taiwan (Advisor: Dr. Chao-Yun Liang)

B.S. in Computer Science — *Sep. 1994 - Jun. 1998*
Department of Computer Science and Information Engineering
Tatung Institute of Technology, Taiwan

Professional Experiences

Associate Professor — *Feb. 2024 - Present*
Department of Design,
National Taiwan University of Science and Technology, Taiwan

Assistant Professor — *Aug. 2018 - Feb. 2024*
Department of Design,
National Taiwan University of Science and Technology, Taiwan

Section Chief of E-Learning Division — *Dec. 2014 - Jul. 2016*
Center for Teaching and Learning Development
National Chengchi University, Taiwan

Assistant Professor — *Aug. 2011 - Aug. 2018*
Department of Computer Science,
National Chengchi University, Taiwan

Lecturer — *Feb. 2010 - Feb. 2011*
Information System Training Program,
National Taiwan University, Taiwan

Lecturer — *Feb. 2007 - Feb. 2010*
Telecom Training Institute,
Chunghwa Telecom Co., Ltd, Taiwan

Lecturer — *Feb. 2007 - Jul. 2007*
Department of Information Communication,
Yuan Ze University, Taiwan

Information Architect and Interaction Designer — *May. 2006 - Nov. 2006*
Receiver Design Studio, San Francisco, CA

Product Manager		*Oct. 2001 - May. 2006*
Department of Value-Added Service, Chunghwa Telecom Co., Ltd, Taiwan		

Professional Services		
	Executive director	*2022 - Present*
	Taiwan Association of Computer Human Interaction (TAICHI)	
	Local co-chair	*2022*
	ACM CSCW2022	
	Demo & Video co-chair	*2021*
	IEEE AIVR2021	
	President	*2020 - 2022*
	Taiwan Association of Computer Human Interaction (TAICHI)	
	Director	*2016 - 2020*
	Taiwan Association of Computer Human Interaction (TAICHI)	
	Local co-chair	*2019*
	ACM MobileHCI2019	
	Demo chair	*2018*
	APMAR2018	
	Program co-chair	*2017*
	ChineseCHI 2017	
	Local co-chair	*2014*
	Smart Graphics 2014	
	Director	*2013 - 2015*
	Taiwan User Experience Professional Association (UXTW)	

Patents	
	US 11,262,848 B1
	Method and head-mounted device for reducing motion sickness in virtual reality
	US 9,410,789 B2
	System and method for using electromagnet arrays to determine 3d relative position of electronic device corresponding to object
	TW I669000
	Selfie mode control method of multi-axis aerial camera
	TW I537797
	Touch panel operation apparatus and method thereof
	TW I536249
	Handheld touch device and its method of using single hand to manipulate full touch range
	TW I466031
	Adjustable marker for tangible object detection
	TW I240521
	Structure used to transmit message through network interface and method thereof

Awards & Honers	**VR Theater, SIGGRAPH 2023** "Out of the Cave"
	VR Theater, SIGGRAPH 2021 "SHE"
	Best of Best, Red Dot Design Award 2021 "EyeBus"
	Creative Teaching Award / NTUST, 2019 "Creative Programming" & "Fundamentals of Interaction Design"
	Excellent MOOCS Course Award / NCCU, 2016 "Programming101"
	Best of Best, Red Dot Design Award 2021 "BlindNavi"
	Best of Best, Red Dot Design Award 2021 "HearMe"
	Best Paper Award, TAICHI 2019 "探討VR敘事技巧 - 以VR動畫「女子」之創作為例"
	Honorable Mention Award, TAICHI 2015 "運動指引之觸覺回饋設計"
	Honorable Mention Award, ACM MobileHCI 2013 "Rapid Selection of Hard-to-Access Targets by Thumb on Mobile Touch-Screens"
	Brown prize, 6th Acer Long-Term Entrepreneur Competition, 2011 "Playful Toys for multi-touch devices"
	Best Paper Award, CVGIP 2010 "Projector Calibration of Multi-Resolution Display"
	First prize, Chunghwa Telecom Value-added Service Competition, 2010 "Flora App - cloud image recognition service for flowers"

Selected Publications

1. <u>Neng-Hao Yu</u>, Shih-Yu Ma, Cong-Min Lin, Chi-Aan Fan, Luca E. Taglialatela, Tsai-Yuan Huang, Carolyn Yu, Yun-Ting Cheng, Ya-Chi Liao, and Mike Y. Chen, "DrivingVibe: Enhancing VR Driving Experience using Inertia-based Vibrotactile Feedback around the Head", *Proc. ACM Hum.-Comput. Interact.* Vol. 7, MHCI (a.k.a.*ACM MobileHCI*), Article 206, Sep. 2023.

2. Luca E. Taglialatela, Chiao-Ju Chang, Shu-Wen Chen, Yi-Han Chang, Chang-Min Chen, Zih-Huei Yang, Tsung-Min Lin, Shih-Yu Ma, <u>Neng-Hao Yu</u>, and Mike Y. Chen, "Alice in Gravityland: Augmenting Gravity Experiences with Around-the-Head Vibrotactile Feedback and Illusory Tactile Motion". *ACM SIGGRAPH 2023 (Immersive Pavilion)*. Los Angeles, CA, USA. Jul, 2023

3. Chun-Miao Tseng, Po-Yu Chen, Shih Chin Lin, Yu-Wei Wang, Yu-Hsin Lin, Mu-An Kuo, <u>Neng-Hao Yu</u>, Mike Y. Chen, "HeadWind: Enhancing Teleportation Experience in VR by Simulating Air Drag during Rapid Motion", *ACM CHI2022*, New Orleans, LA. Apr, 2022

4. Fatma S. Abousaleh, Wen-Huang Cheng, <u>Neng-Hao Yu</u>, and Yu Tsao, "Multimodal Deep Learning Framework for Image Popularity Prediction on Social Media", *IEEE Transactions on Cognitive and Developmental Systems,* Volume: 13, Issue: 3, Sep, 2021

5. Yi-Hao Peng, Carolyn Yu, Shi-Hong Liu, Chung-Wei Wang, Paul Taele, <u>Neng-Hao Yu</u>, Mike Y. Chen. "WalkingVibe: Reducing Virtual Reality Sickness and Improving Realism while Walking in VR using Unobtrusive Head-mounted Vibrotactile Feedback". *ACM CHI2020*, Honolulu, HI, USA. Apr, 2020

6. Carolyn Yu, Yee Li, Tsai-Yuan Huang, Wei-An Hsieh, Shao-Yu Lee, I-Hui Yeh, Gang Ku Lin, Neng-Hao Yu, Hsien-Hui Tang, Yung-Ju Chang. "BusMyFriend: Designing a Bus Reservation Service for People with Visual Impairments in Taipei". *ACM DIS 2020 (WIP)*, Eindhoven, Netherland. Jul, 2020.

7. Shi-Hong Liu, <u>Neng-Hao Yu</u>, Li-Wei Chan, Yi-Hao Peng, Wei-Zen Sun, Mike Y. Chen. "PhantomLegs: Reducing Virtual Reality Sickness Using Head-Worn Haptic Devices". *IEEE VR2019,* Osaka, Japan. Mar, 2019

8. Chiu-Hsuan Wang, Chen-Yuan Hsieh, <u>Neng-Hao Yu</u>, Andrea Bianchi, Liwei Chan. "HapticSphere: Physical support to enable precision touch interaction in mobile mixed-reality". *IEEE VR2019,* Osaka, Japan. Mar, 2019

9. Yu-An Chen, Te-Yen Wu, Tim Chang, Jun-You Liu, Yuan-Chang Hsieh, Leon Yulun Hsu, Ming-Wei Hsu, Paul Taele, <u>Neng-Hao Yu</u>, Mike Y. Chen. "ARPilot: designing and investigating AR shooting interfaces on mobile devices for drone videography". *ACM MobileHCI2018*. Barcelona, Spain. Sep, 2018

10. Fatma S. Abousaleh, Tekoing Lim, Wen-Huang Cheng, <u>Neng-Hao Yu</u>, M. Anwar Hossain, Mohammed F. Alhamid. "A novel comparative deep learning framework for facial age estimation". *EURASIP Journal on Image and Video Processing*, Vol.2016 No.1 pp.47. Dec, 2016

11. Chia-Yu Chen, Yi-Ju Chung, <u>Neng-Hao Yu</u>. "Motion Guidance Sleeve: Guiding Forearm Rotation through External Artificial Muscles". *ACM CHI2016*. San Jose, CA, USA. May, 2016

12. Ying-Chao Tung, Ta Yang Cheng, <u>Neng-Hao Yu</u>, Chiuan Wang, Mike Y. Chen. "FlickBoard: Enabling Trackpad Interaction with Automatic Mode Switching on a Capacitive-sensing Keyboard". *ACM CHI2015*, Soeul, Korea. May, 2015

13. <u>Neng-Hao Yu</u>, Da-Yuan Huang, Toby Hsu, Yi-Ping Hung. "Rapid Selection of Hard-to-Access Targets by Thumb on Mobile Touch-Screens". *ACM MobileHCI 2013*, Munich, Germany. Aug, 2013. (Honorable Mention Award)

14. <u>Neng-Hao Yu</u>, Sung-Sheng Tsai, I-Chun Hsiao, Dian-Je Tsai, Meng-Han Lee, Mike Y. Chen, Yi-Ping Hung. "Clip-on Gadgets: Expanding Multi-touch Interaction Area with Unpowered Tactile Controls". *ACM UIST2011*, Santa Barbara, CA. Oct, 2011.

15. <u>Neng-Hao Yu</u>, Li-Wei Chan, Seng-Yong Lau, Sung-Sheng Tsai, I-Chun Hsiao, Dian-Je Tsai, Lung-Pan Cheng, Fang-I Hsiao, Mike Y. C, "TUIC: Enabling Tangible Interaction on Capacitive Multi-touch Displays". *ACM CHI 2011*, Vancouver, BC. May 2011

16. Marco Piovesana, Ying-Jui Chen, <u>Neng-Hao Yu</u>, Hsiang-Tao Wu, Li-Wei Chan, Yi-ping Hung, "Multi-Display Map Touring with Tangible Widget". *ACM Multimedia 2010*, Firenze, Italy. Oct, 2010

17. Po-Hsun Chiu, Shih-Yao Lin, Li-Wei Chan, <u>Neng-Hao Yu</u>, Yi-Ping Hung, "Projector Calibration of Multi-Resolution Display". *CVGIP 2010*, Kaohsiung, Taiwan. Aug. 2010. (Best Paper Award)

Full Publication list: <u>https://scholar.google.com/citations?user=Unwg__kAAAAJ</u>

Latest Update: February, 2024