



Kun-Hui Chen

Office:

1650 Taiwan boulevard Sect. 4, Taichung, Taiwan, 407219

TEL: 886-4-23592525 ext 5101

E-Mail: khc@vghtc.gov.tw, orthochen@gmail.com



Current Position: since

- 2021/11 Director of Orthopedic Department, Taichung Veterans General Hospital (VGHTC), Taiwan
- 2021/11 Executive Manager of Clinical Informatics Committee, VGHTC
- 2022/8 Deputy Executive Manager of Operating Room Management Committee, VGHTC
- 2016/05 Supervisor, Taiwan Spine Society
- 2002/8 Attending Staff of Spinal Surgery Section, Orthopedic Department, VGHTC
- 2014/12 Chief of Bone Disease Section, Orthopedic Department, VGHTC
- 2021/3 Assistant Professor, Jen-The Junior College of Medicine, Nursing and Management
- 2021/8 Assistant Professor, College of Medicine, National Chung-Hsing University, Taichung, Taiwan

Education:

- Oct. 2007 - Jun., 2016 PhD of Biomedical Engineering, Institute of Biomedical Engineering, National Yang-Ming University, Taipei, Taiwan
- Nov., 1990 - Jun., 1992 Internship, VGHTC, Taiwan
- Oct., 1985 - Oct., 1990 Medical Student, National Yang-Ming Medical College

Training and work experience:

- 2018/10 – 2020/10 Supervisor, Taiwan Orthopaedic Association
- 2001/6 – 2002/8 Fellowship of Orthopedic Department, VGHTC
- 1997/6 – 2001/6 Resident of Orthopedic Department, VGHTC
- 1996/6 – 1997/6 Resident of Surgery Department, VGHTC
- 1994/6 – 1996/6 Resident of Surgery Department, Pu-Li Veterans Hospital

Major Research Interests:

1. Spine surgery including ALIF, OLIF, TLIF, Minimal invasive spine surgery
2. Surgery of metastatic spinal lesion, TES (total en bloc spondylectomy)
3. Surgery of Spinal deformity, PSO, SPO, pVCR

4. Hip and knee replacement surgery, bilateral TKR, Robotic-assisted arthroplasty
5. Medical informatics, computer science and programming language
6. Biomechanical engineering

Biography:

Kun-Hui Chen is currently the director of the Orthopedic Department at Taichung Veterans General Hospital. He is also an assistant professor at the National Chung Hsing University in Taichung, Taiwan. Dr. Chen obtained his MD from the National Yang-Ming Medical College, and trained at the Taichung Veterans General Hospital. In 201=07, he obtained a PhD degree from the Institute of Biomedical Engineering, National Yang-Ming University. Dr. Chen have focused on spinal surgery including spinal tumor operation, total enbloc spinal tumor resection, deformity correction operation including SPO/PSO and VCR/pVCR, minimally invasive operation about the spine. He also focused on knee and hip arthroplasty and had performed more than 500 simultaneous bilateral knee arthroplasty.

Dr. Chen also had comprehensive knowledge about programming language, computer informatics and data management. He is currently the Executive Manager of Clinical Informatics Committee at VGHTC. He also received his training of pervasive computing and edge computing by Prof. Chang at National Yang-Ming University, Lab of Pervasive Computing.

Publications: * Correspondence author

1. Kuan-Kai Tung, Kun-Hui Chen*, Chien-Chou Pan, Cheng-Hung Lee, Letter to the editor regarding, "The impact of interbody approach and lumbar level on segmental, adjacent, and sagittal alignment in degenerative lumbar pathology: a radiographic analysis 6 months following surgery" by O'Connor et al. *The Spine Journal* 22 (2022) 1585
2. Ming-Tzu Tsai, Cheng-Hung Lee, Kun-Hui Chen, Yu-Chun Yen, Chun-Hsiang Wang, Shun-Ping Wang, Kuo-Chih Su, Trochanteric Nails for the Reduction of Intertrochanteric Fractures: A Biomechanical Analysis Based on Finite Element Analysis and DIC System, *Journal of Medical and Biological Engineering*, online, July, 2022, <https://doi.org/10.1007/s40846-022-00732-5>
3. Kao-Chang Tu, Cheng-Min Shih, Kun-Hui Chen, Chien-Chou Pan, Fuu-Cheng Jiang, Cheng-En Hsu, Yun-Ming Wang and Cheng-Hung Lee , Direct reduction of high-grade lumbosacral spondylolisthesis with anterior cantilever technique - surgical technique note and preliminary results,
4. Chia-Yeh Hsieh, Hsiang-Yun Huang, Kai-Chun Liu, Kun-Hui Chen, Steen Jun-Ping Hsu, and Chia-Tai Chan, "Subtask Segmentation of Timed Up and Go Test for Mobility Assessment of Perioperative Total Knee Arthroplasty", *Sensors* 2020, 20, 6302; doi:10.3390/s20216302
5. Ting-Yu Shih, Yun-Che Wu, Chien-Chou Pan, Cheng-Min Shih, Li Kun Hung, Kun-Hui Chen, Cheng-Hung Lee, Rescue of Life-Threatening Great Vessel Injury during Posterior Spine Surgery", *Biomedical Journal of Scientific & Technical Research, Biomedical Research Network+*, 2020, LLC, vol. 24(5), pages 18594-18598, January.

6. Chia-Yeh Hsieh; Hsiang-Yun Huang; Kai-Chun Liu; Kun-Hui Chen; Steen J. Hsu; Chia-Tai Chan, "Automatic Subtask Segmentation Approach of the Timed Up and Go Test for Mobility Assessment System Using Wearable Sensors", 2019 IEEE EMBS International Conference on Information Technology Applications in Biomedicine (ITAB)
7. Yun-Shao Cho, Li-Kai Liao, Chia-Hsun Hsua, Yu-Hsuan Hsu, Wan-Yu Wu, Shu-Chuan Liao, Kun-Hui Chen, Ping-Wing Lui, Sam-Zhang, Shui-Yang Lien, "Effect of substrate bias on biocompatibility of amorphous carbon coatings deposited on Ti6Al4V by PECVD", *Surface and Coatings Technology*, Volume 357, 15 January 2019, Pages 212-217 (Reprint on Volume 376, 25 October 2019, 124787)
8. Yung-Cheng Chiu, Kui-Chou Huang, Cheng-Min Shih, Kun-Tsan Lee, Kun-Hui Chen & Cheng-En Hsu, "Comparison of implant failure rates of different plates for midshaft clavicular fractures based on fracture classifications", *Journal of Orthopaedic Surgery and Research* volume 14, Article number: 220 (2019)
9. I-Chiu Chang, Chih-Yu Lin, Kun-Hui Chen, Chia-Hsien Wen, Evaluating A Service-Oriented Architecture Based Operation Notes Implementation System, *The Journal of Taiwan Association for Medical Informatics*, Vol. 28(3), September 2019, p.11-26 醫療資訊雜誌第二十八卷第三期 民國 108 年 9 月 · 11-26 頁, 台灣醫學資訊學會
10. Wei-En Hsu, Kuo-Chih Su, Kun-Hui Chen, Chien-Chou Pan, Wen-Hsien Lu, and Cheng-Hung Lee, The Evaluation of Different Radiological Measurement Parameters of the Degree of Collapse of the Vertebral Body in Vertebral Compression Fractures, *Applied Bionics and Biomechanics*, Volume 2019, Article ID 4021640, <https://doi.org/10.1155/2019/4021640>
11. Cheng-Chi Wang, Cheng-Hung Lee, Kun-Hui Chen, Chien-Chou Pan, Kuo-Chih Su, Effects of Different Lateral Femoral Wall Thickness In Intertrochanteric Hip Fracture Treated with Dynamic Hip Screw, *Journal of Mechanics in Medicine and Biology* Vol. 19, No. 1 (2019) 1940022, DOI: 10.1142/S0219519419400220
12. Yu-Hsien Lin, Feng-Shuo Chang, Kun-Hui Chen, Kui-Chou Huang, and Kuo-Chih Su, Mismatch between femur and tibia coronal alignment in the knee joint: classification of five lower limb types according to femoral and tibial mechanical alignment, *BMC Musculoskeletal Disorders* (2018) 19:411, <https://doi.org/10.1186/s12891-018-2335-9>,
13. Cheng-Hung Lee, Kuo-Chih Su, Kun-Hui Chen, Chien-Chou Pan and Yun-Che Wu, Impact of tip–apex distance and femoral head lag screw position on treatment outcomes of unstable intertrochanteric fractures using cephalomedullary nails, *J Int Med Res*. 2018 Jun;46(6):2128-2140. doi: 10.1177/0300060518775835. Epub 2018 May 30
14. Chih-Yen Chiang , Kun-Hui Chen , Kai-Chun Liu , Steen Jun-Ping Hsu and Chia-Tai Chan, “Data Collection and Analysis Using Wearable Sensors for Monitoring Knee Range of Motion after Total Knee Arthroplasty”, *Sensors* Feb, 2017, 17(2), 418; doi:10.3390/s17020418, Open Access (SCI)
15. Cheng-Hung Lee, Cheng-Min Shih, Kui-Chou Huang, Kun-Hui Chen, Li-Kun Hung, and Kuo-Chih Su, Biomechanical Analysis of Implanted Clavicle Hook Plates With Different Implant Depths and Materials in the Acromioclavicular Joint: A Finite Element Analysis Study, *Artif Organs*. 2016 Nov;40(11):1062-1070. doi: 10.1111/aor.12679. Epub 2016 Jan 27.

16. Kun-Hui Chen, Po-Chao Chen, Kai-Chun Liu and Chia-Tai Chan, “Wearable Sensor-Based Rehabilitation Exercise Assessment for Knee Osteoarthritis”, *Sensors* 2016, 15, pp. 4193-4211; doi:10.3390/s150204193, Open Access (SCI)
17. Steen J. Hsu, Kun-Hui Chen, Chih-Ning Huang, Chih-Yen Chiang, Chia-Tai Chan, “MID-based Instant Transmission of Radiological images for Emergency Teleconsultation”, *Applied Mechanics and Materials*, Vol. 284-287, 2013, pp.267-272. (EI)
18. Steen J.Hsu†, Kun-Hui Chen, Chih-Ning Huang, Chih-Yen Chiang, Chia-Tai Chan, "MID-based instant transmission of radiological images for emergency teleconsultation", *International Conference on Engineering and Technology Innovation*, Kaohsiung Taiwan, Nov. 02-06 2012.
19. 連續被動性運動對於膝關節置換術後老年病人之影響— 以台灣某醫學中心骨科病房為例 · 鄭秀容 · 杜異珍 · 巫美惠 · 潘建州 · 陳昆輝 · 李政鴻 · *Journal of Nursing and Healthcare Research* June 2012 Vol. 8, No. 2
20. Kwok-Man Tong, Chao-Ping Chen, Kui-Chou Huang, Dong-Chen Shieh, Hsu-Chen Cheng, Chung-Yuh Tzeng, Kun-Hui Chen, Yung-Cheng Chiu, Chih-Hsin Tang , “Adiponectin increases MMP-3 expression in human chondrocytes through adipor1 signaling pathway”, *Journal of Cellular Biochemistry*, Volume 112, Issue 5, pages 1431–1440, May 2011 (SCI) IF: 2.868, Q3 : 101/181 in *Cell Biology* :, Q2 : 142/290 in *Biochemistry & Molecular Biology* 2.857
21. Inappropriate use of a chi-squared test and the Fisher exact test, Electric letter to editor, Kun-Hui Chen, Tu-Sheng Lee, Yu-Min Lin, *J Bone Joint Surg* (20 March, 2008) (SCI)
22. Transpedicular Partial Corpectomy Without Anterior Vertebral Reconstruction in Thoracic Spinal Metastasis. *Clinical Case Series, Spine*. 32(22):E623-E626, October 15, 2007. Yen-Jen Chen, Horng-Chaung Hsu, Kun-Hui Chen, Tsai-Chung Li, Tu-Sheng Lee (SCI)
23. A Simple Technique of Removal of Femoral Cement Plug – Two Cases Report, Yuan-Tsung Hung, Kwok-Man Tong, Kun-Hui Chen, Tu-Sheng Lee, *Journal of Taiwan Orthopedic Surgery*, Vol. 18-2 (2004/06), p.96-99
24. Kun-Hui Chen, Tai-Sheng Tan, Tu-Sheng Lee, Ming-Chou Ku, Combined Lateral Meniscus Tear and ACL-based Ganglion: A Case Report. *Shou Chwan Medical Journal*, Vol. 4, NNo. 1, p.51-55, January 2003
25. The Effect of a Nitric Oxide Donor on Microcirculation of Denervated Skeletal Muscle after Ischemia/Reperfusion Injury, Chen-His Chou; Tu-Sheng Lee; Kun-Hui Chen, *Journal of Taiwan Orthopedic Surgery*, Vol 18-2(2001/06), p.76-88