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Journal Articles (56)

1   Kho, C. L. W., Chow, D. Y., Wong, J. M., Loh, J. W., Sim, Y. F., Gan, M. J. S., Foong, K. W. C., & Lim, L. Z. (2022). Comparing the effectiveness of two diagnostic approaches for the interpretation of oral radiographic lesions by dental students. *Adv Health Sci Educ Theory Pract*. doi:10.1007/s10459-022-10145-3

2   Lee, C. K. J., Foong, K. W. C., Sim, Y. F., & Chew, M. T. (2021). Evaluation of the accuracy of cone beam computed tomography (CBCT) generated tooth replicas with application in autotransplantation. *JOURNAL OF DENTISTRY*, *117*, 7 pages. doi:10.1016/j.jdent.2021.103908

3   Chan, G. X. L., Tan, E. L. Y., Chew, M. T., Wong, H. C., Foong, K. W. C., & Yow, M. (2021). Prevalence of Class I, II and III skeletal relationships and its association with dental anomalies in an ethnic Chinese orthodontic population. *Proceedings of Singapore Healthcare*. doi:10.1177/20101058211000779

4   Wong, M. L., Lee, T. W. O., Allen, P. F., & Foong, K. W. C. (2020). Dental education in singapore: A journey of 90 years and beyond. *Asia Pacific Scholar*, *5*(1), 3-7. doi:10.29060/TAPS.2020-5-1/GP1086

5   Foong, K. W. C., Yen, C. C., Lee, J., Tong, H. J., Voon, C. T. F., Tok, W. W., & Islam, I. (2019). Building confidence and competency in the delivery of local regional anaesthesia by undergraduate dental students with 3D printed anatomy models and augmented reality technology. *Asian Journal of the Scholarship of Teaching and Learning*, *9*, 212-222.

6   Chan, G. X. L., Tan, E. L. Y., Chew, M. T., Wong, H. C., Foong, K. W. C., & Yow, M. (2019). Secondary dentition characteristics in an ethnic Chinese orthodontic population: A retrospective cross-sectional study. *Journal of Investigative and Clinical Dentistry*, *10*(3). doi:10.1111/jicd.12421

7   Qian, L., Chew, M. T., Yow, M., Wong, H. C., & Foong, K. W. C. (2017). Anomalies of permanent tooth number in three Asian ethnicities. *Australasian Orthodontic Journal*, *33*(2), 212-219.

8   Yang, Y., Hu, Y., Gao, X., Yang, K., Foong, K. W. C., & Takada, K. (2017). Non-Rigid Point Set Registration Based Masticatory Muscle Deformation Measurement. *JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS*, *7*(4), 820-827. doi:10.1166/jmihi.2017.2086

9   Ho, C. S. F., Ming, Y., Foong, K. W. C., Rosa, V., Thuyen, T., & Seneviratne, C. J. (2017). Streptococcus mutans forms xylitol-resistant biofilm on excess adhesive flash in novel ex-vivo orthodontic bracket model. *AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS*, *151*(4), 669-677. doi:10.1016/j.ajodo.2016.09.017

10 Zhang, Z., Ong, S. H., Zhong, X., & Foong, K. W. C. (2016). Efficient 3D dental identification via signed feature histogram and learning keypoint detection. *PATTERN RECOGNITION*, *60*, 189-204. doi:10.1016/j.patcog.2016.05.007

11 Chng, C. K., Foong, K., Gandedkar, N. H., Chan, Y. H., & Chew, C. L. (2015). A new esthetic fiber-reinforced polymer composite resin archwire: A comparative atomic force microscope (AFM) and field-emission scanning electron microscope (FESEM) study. *Progress in Orthodontics*, *15*(1). doi:10.1186/s40510-014-0039-8

12 Yang, Y., Ong, S. H., & Foong, K. W. C. (2015). A robust global and local mixture distance based non-rigid point set registration. *PATTERN RECOGNITION*, *48*(1), 156-173. doi:10.1016/j.patcog.2014.06.017

13 Yi Lin, S., Mimi, Y., Ming Tak, C., Kelvin Weng Chiong, F., & Hung Chew, W. (2015). A study of success rate of miniscrew implants as temporary anchorage devices in Singapore. *International Journal of Dentistry*, *2015*. doi:10.1155/2015/294670

14 Bui, N. L., Ong, S. H., & Foong, K. W. C. (2015). Automatic segmentation of the nasal cavity and paranasal sinuses from cone-beam CT images. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *10*(8), 1269-1277. doi:10.1007/s11548-014-1134-5

15 Ji, D. X., Ong, S. H., & Foong, K. W. C. (2014). A level-set based approach for anterior teeth segmentation in cone beam computed tomography images. *COMPUTERS IN BIOLOGY AND MEDICINE*, *50*, 116-128. doi:10.1016/j.compbiomed.2014.04.006

16 Chng, C. K., Foong, K. W. C., Gandedkar, N. N., Chan, Y. H., & Chew, C. L. (2014). A study of the novel aesthetic archwire on its frictional properties and its application to orthodontics. *APOS Trends in Orthodontics*, *4*, 16-19.

17 Mah, M., Tan, W. C., Ong, S. H., Chan, Y. H., & Foong, K. (2014). Three-dimensional analysis of the change in the curvature of the smiling line following orthodontic treatment in incisor class II division 1 malocclusion. *EUROPEAN JOURNAL OF ORTHODONTICS*, *36*(6), 657-664. doi:10.1093/ejo/cjt041

18 Zhong, X., Yu, D., Wong, Y. S., Sim, T., Lu, W. F., Foong, K. W. C., & Cheng, H. -L. (2013). 3D dental biometrics: Alignment and matching of dental casts for human identification. *COMPUTERS IN INDUSTRY*, *64*(9), 1355-1370. doi:10.1016/j.compind.2013.06.005

19 Ji, D. X., Foong, K. W. C., & Ong, S. H. (2013). A two-stage rule-constrained seedless region growing approach for mandibular body segmentation in MRI. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *8*(5), 723-732. doi:10.1007/s11548-012-0806-2

20 Zheng, F., Lu, W. F., Wong, Y. S., & Foong, K. W. C. (2013). Graphic Processing Units (GPUs)-Based Haptic Simulator for Dental Implant Surgery. *JOURNAL OF COMPUTING AND INFORMATION SCIENCE IN ENGINEERING*, *13*(4), 9 pages. doi:10.1115/1.4024972

21 Zhang, Z., Yin, K., & Foong, K. W. C. (2013). Symmetry robust descriptor for non-rigid surface matching. *Computer Graphics Forum*, *32*(7), 355-362. doi:10.1111/cgf.12243

22 Zheng, F., Lu, W. F., Wong, Y. S., & Foong, K. W. C. (2012). An analytical drilling force model and GPU-accelerated haptics-based simulation framework of the pilot drilling procedure for micro-implants surgery training. *COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE*, *108*(3), 1170-1184. doi:10.1016/j.cmpb.2012.05.015

23 Xiong, W., Ong, S. -H., Lim, J. -H., Foong, K. W. C., Liu, J., Racoceanu, D., . . . Tan, K. S. W. (2010). Automatic Area Classification in Peripheral Blood Smears. *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*, *57*(8), 1982-1990. doi:10.1109/TBME.2010.2043841

24 Deguchi, T., Katashiba, S., Inami, T., Foong, K. W. C., & Chan, Y. H. (2010). Morphologic quantification of the maxilla and the mandible with cone-beam computed tomography. *American Journal of Orthodontics and Dentofacial Orthopedics*, *137*(2), 218-222. doi:10.1016/j.ajodo.2008.02.029

25 Hiew, L. T., Ong, S. H., & Foong, K. W. C. (2010). Optimal occlusion of teeth using planar structure information. *MACHINE VISION AND APPLICATIONS*, *21*(5), 735-747. doi:10.1007/s00138-009-0191-1

26 Ng, H. P., Ong, S. H., Huang, S., Liu, J., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2010). Salient features useful for the accurate segmentation of masticatory muscles from minimum slices subsets of magnetic resonance images. *MACHINE VISION AND APPLICATIONS*, *21*(4), 449-467. doi:10.1007/s00138-008-0172-9

27   Ng, H. P., Ong, S. H., Liu, J., Huang, S., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2009). 3D Segmentation and Quantification of a Masticatory Muscle from MR Data Using Patient-Specific Models and Matching Distributions. *JOURNAL OF DIGITAL IMAGING*, *22*(5), 449-462. doi:10.1007/s10278-008-9132-1

28   Hiew, L. T., Ong, S. H., & Foong, K. W. C. (2009). Craniofacial skull reconstruction from MRI using morphological hole filling. *International Journal of Computer Assisted Radiology and Surgery*, *4*(Suppl 1), S202-S203. doi:10.1007/s11548-009-0330-1

29   Ng, H. P., Foong, K. W. C., Ong, S. H., Goh, P. S., Huang, S., Liu, J., & Nowinski, W. L. (2009). Quantitative analysis of human masticatory muscles using magnetic resonance imaging. *DENTOMAXILLOFACIAL RADIOLOGY*, *38*(4), 224-231. doi:10.1259/dmfr/75198413

30   Poon, K. H., Chay, S. H., & Chiong, K. F. W. (2008). Airway and craniofacial changes with mandibular advancement device in Chinese with obstructive sleep apnoea. *Annals of the Academy of Medicine Singapore*, *37*(8), 637-644.

31   Ng, H. P., Liu, J., Huang, S., Ong, S. H., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2008). An improved shape determinative slice determination method for patient-specific modeling of facial anatomical structure. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *3*(3-4), 221-230. doi:10.1007/s11548-008-0222-9

32   Murakami, Y., Deguchi, T., Kageyama, T., Miyazawa, H., & Foong, K. W. C. (2008). Assessment of the esthetic smile in young Japanese women. *Orthodontic Waves*, *67*(3), 104-112. doi:10.1016/j.odw.2008.03.001

33   Tanaka, T., Deguchi, T., Kageyama, T., Kanomi, R., Inoue, M., & Foong, K. W. C. (2008). Autotransplantation of 28 premolar donor teeth in 24 orthodontic patients. *Angle Orthodontist*, *78*(1), 12-19. doi:10.2319/120706-495.1

34   Ng, H. P., Ong, S. H., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2008). FUZZY C-MEANS ALGORITHM WITH LOCAL THRESHOLDING FOR GRAY-SCALE IMAGES. *INTERNATIONAL JOURNAL ON ARTIFICIAL INTELLIGENCE TOOLS*, *17*(4), 765-775. doi:10.1142/S021821300800414X

35   Ng, H. P., Ong, S. H., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2008). Masseter segmentation using an improved watershed algorithm with unsupervised classification. *COMPUTERS IN BIOLOGY AND MEDICINE*, *38*(2), 171-184. doi:10.1016/j.compbiomed.2007.09.003

36   Xiao, G., Ong, S. H., & Foong, K. W. C. (2007). 3D registration of partially overlapping surfaces using a volumetric approach. *IMAGE AND VISION COMPUTING*, *25*(6), 934-944. doi:10.1016/j.imavis.2006.07.006

37   Buchaillard, S. I., Ong, S. H., Payan, Y., & Foong, K. (2007). 3D statistical models for tooth surface reconstruction. *COMPUTERS IN BIOLOGY AND MEDICINE*, *37*(10), 1461-1471. doi:10.1016/j.compbiomed.2007.01.003

38   Ng, H. P., Hu, Q. M., Ong, S. H., Foong, K. W. C., Goh, P. S., Liu, J., & Nowinski, W. L. (2007). Segmentation of the temporalis muscle from MR data. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *2*(1), 19-30. doi:10.1007/s11548-007-0073-9

39   Ng, H. P., Foong, K. W. C., Ong, S. H., Liu, J., Goh, P. S., & Nowinski, W. L. (2007). Shape determinative slice localization for patient-specific masseter modeling using shape-based interpolation. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *2*, S398-S400. Retrieved from http://gateway.webofknowledge.com/

40   Ng, H. P., Ong, S. H., Hu, Q., Foong, K. W. C., Goh, P. S., & Nowinski, W. L. (2006). Muscles of mastication model-based MR image segmentation. *INTERNATIONAL JOURNAL OF COMPUTER ASSISTED RADIOLOGY AND SURGERY*, *1*(3), 137-148. doi:10.1007/s11548-006-0046-4

41   Xiao, G., Ong, S. H., & Foong, K. W. C. (2006). Registration of partially overlapping surfaces by rejection of false point correspondences. *PATTERN RECOGNITION*, *39*(3), 373-383. doi:10.1016/j.patcog.2005.06.006

42   Wong, N. K. C., Kassim, A. A., & Foong, K. W. C. (2005). Analysis of esthetic smiles by using computer vision techniques. *AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS*, *128*(3), 404-411. doi:10.1016/j.ajodo.2005.02.012

43   Xiao, G., Ong, S. H., & Foong, K. W. C. (2005). Efficient partial-surface registration for 3D objects. *COMPUTER VISION AND IMAGE UNDERSTANDING*, *98*(2), 271-294. doi:10.1016/j.cviu.2004.10.001

44   Zou, X. H., Foong, W. C., Cao, T., Bay, B. H., Ouyang, H. W., & Yip, G. W. (2004). Chondroitin sulfate in palatal wound healing. *JOURNAL OF DENTAL RESEARCH*, *83*(11), 880-885. doi:10.1177/154405910408301111

45   Kondo, T., Ong, S. H., & Foong, K. W. C. (2004). Computer-based extraction of the inferior alveolar nerve canal in 3-D space. *COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE*, *76*(3), 181-191. doi:10.1016/j.cmpb.2004.06.003

46   Fujihara, K., Teo, K., Gopal, R., Loh, P. L., Ganesh, V. K., Ramakrishna, S., . . . Chew, C. L. (2004). Fibrous composite materials in dentistry and orthopaedics: review and applications. *COMPOSITES SCIENCE AND TECHNOLOGY*, *64*(6), 775-788. doi:10.1016/j.compscitech.2003.09.012

47   Kondo, T., Ong, S. H., & Foong, K. W. C. (2004). Tooth segmentation of dental study models using range images. *IEEE TRANSACTIONS ON MEDICAL IMAGING*, *23*(3), 350-362. doi:10.1109/TMI.2004.824235

48   Huang, Z. M., Gopal, R., Fujihara, K., Ramakrishna, S., Loh, P. L., Foong, W. C., . . . Chew, C. L. (2003). Fabrication of a new composite orthodontic archwire and validation by a bridging micromechanics model. *BIOMATERIALS*, *24*(17), 2941-2953. doi:10.1016/S0142-9612(03)00093-0

49   Foong, K. W. (2000). The Gold Medal Prize in the Conjoint M.Orth. exam of the Royal College of Surgeons of Edinburgh held in Hong Kong, 1996.. *Journal of orthodontics*, *27*(1), 1-10. doi:10.1093/ortho/27.1.1

50   Foong, K., & Sims, M. R. (1999). Blood volume in human bicuspid periodontal ligament determined by electron microscopy. *Archives of Oral Biology*, *44*(6), 465-474. doi:10.1016/S0003-9969(99)00030-8

51   Foong, K. W. C., Sandham, A., Ong, S. H., Wong, C. W., Wang, Y., & Kassim, A. (1999). Surface laser scanning of the cleft palate deformity - Validation of the method. *Annals of the Academy of Medicine Singapore*, *28*(5), 642-649.

52   Lim, K. F., & Foong, K. W. (1997). Phosphor-stimulated computed cephalometry: reliability of landmark identification.. *British journal of orthodontics*, *24*(4), 301-308. doi:10.1093/ortho/24.4.301

53   Keng, S. B., & Foong, K. W. C. (1996). Maxillary arch and central incisor dimensions of an ethnic Chinese population in relation to complete denture prosthodontics. *International Dental Journal*, *46*(2), 103-107.

54   Lew, K. K., & Foong, W. C. (1993). Horizontal skeletal typing in an ethnic Chinese population with true Class III malocclusions.. *British journal of orthodontics*, *20*(1), 19-23. doi:10.1179/bjo.20.1.19

55   Lew, K. K., Foong, W. C., & Loh, E. (1993). Malocclusion prevalence in an ethnic Chinese population. *Australian Dental Journal*, *38*(6), 442-449. doi:10.1111/j.1834-7819.1993.tb04759.x

56   Teo, C. S., Milgrom, P., Foong, K. W. C., Liu, H. H., Vignehsa, H., & Elliot, J. (1990). The prevalence of dental fear in young adult Singaporeans. *International Dental Journal*, *40*, 37-42.