

WINGS-LST セミナーご案内

台湾の国立台北大学の機械工学科の **Cho-Pei JIANG** 先生が来日されますので、以下の要領でセミナーを開催いたします。多数ご参加下さい。

“Introduction of Additive Manufacturing Promotion Program and the Development of Digital Dentistry in Taiwan”

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●日時場所：2020年1月16日（木）15:00-16:30

●場所：工学部3号館6階，6B04号室（大会議室）

*工学部3号館はフロアーがロックされていますので，6Fでエレベータをお降りになりましたら，内線27073までお電話下さい。開錠いたします。

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Introduction of Additive Manufacturing Promotion Program and the Development of Digital Dentistry in Taiwan

Abstract

Ministry of Science and Technology (MOST) of Taiwan begins to promote the development of additive manufacturing (AM) since 2013 in the applications of aerospace, medical device and system integration. The outcome of this program has spinoff 8 new companies and published many journal papers. The author focuses on the development of digital dentistry which consisting of model reconstruction, restoration device design, biocompatible and photo-curable resin, and multi-resin printer for dental restoration device fabrication. Acknowledging for MOST financial support, a novel intra-oral scanner is developed to design the model of complete denture. Four resins have obtained the tFDA certificate and two of them has submitted to FDA in US. A multi-vat stereolithography has been developed and printing the designed complete denture model for clinical use. Furthermore, zirconia is widely used in dental and orthopedics application such as permanent dental crown and bone graft. Therefore, a novel zirconia slurry printing technology is also proposed to fabricate the customized replacement with complex structure. High dense zirconia crowns with varying shapes can be obtained by one pass fabrication. The cost is lower than using CAD/CAM system. Consequently, we spinoff two companies to promote the digital dentistry in Taiwan and spread it worldwide.

Short biography:

Dr. Jiang is a Professor in the Department of Mechanical Engineering of National Taipei University, Taiwan. He received B.S. from Tatung University in 1997, M.S. from National Central University in 1999 and Ph.D. from National Taiwan University of Science and Technology in 2003. During the career for Industrial Technology Research Institute (ITRI) from 2003 to 2007, his research interest mainly focused on medical device design and novel technology development of additive manufacturing. He collaborated with RIKEN Japan and won the outstanding research award in 2005, and the excellent paper award in 2006. He became an assistant professor in National Formosa University (NFU) in 2007, Associate Professor and Professor in 2011 and 2015, respectively. He won the NFU outstanding industry-academia achievement collaboration award in 2016 and NFU outstanding research award in 2017. He was a visiting professor in The University of Auckland in 2018. He organized several international conferences and acted as chair for AMBE 2015, AMBE 2017, IWMFT 2018 and AMBE 2019. He won the outstanding Research Award of AMPT 2019.