Outputs Arising from Dean's Research Fund

Fourth Round

Seed Funding for Research Scheme (SFRS)	
Project Leader	**Dr XIE Haoran, MIT**
Project Title *(Ref No.)*	Key Technologies on Context-Aware Geometry Processing of Bas-Relief Surface *(SFRS-1)*
Output:	Journal/ book 1. Luming Liang, Mingqiang Wei*, Andrzej Szymczak, Anthony Petrella, Haoran Xie, Jing Qin, Jun Wang, and Fu Lee Wang, Nonrigid iterative closest points for registration of 3D biomedical surfaces. Optics and Lasers in Engineering, 100, 141-154, 2018 *(2018)* 2. Mingqiang Wei, Jun Wang, Xianglin Guo, Huisi Wu, Haoran Xie*, Fu Lee Wang, and Jing Qin, Learning-based 3D surface optimization from medical image reconstruction. Optics and Lasers in Engineering, 103, 110-118, 2018. *(2018)* 3. Mingqiang Wei, Yidan Feng, Weiming Wang, Haoran Xie, and Fu Lee Wan, 魏明強*,馮一簞,王偉明,謝浩然,王富利., Interval Gradient Based Joint Bilateral Filtering for Image Texture Removal, Computer Science, 45(3), 29-34, 2018 (In Chinese), 基於區間梯度的聯合雙邊濾波圖像紋理去除方法.計算機科學, 45(3), 29-34, 2018 *(2018)* 4. Mingqiang Wei, Zhan Song, Ying Nie, Jianhuang Wu, Zhongping Ji, Yanwen Guo, Haoran Xie, Jun Wang and Fu Lee Wang, Normal-Based Bas-Relief Modeling via Near-Lighting Photometric Stereo, Computer Graphic Forum *(under review)* 5. Mingqiang Wei, Wai-Man Pang, Fu Lee Wang, Haoran Xie*, Jun Wang, Jing Qin, Joint Weighted Least Squares for Surface Normal Decomposition, Optics and Lasers in Engineering *(under review)* 6. Mingqiang Wei, Xianglin Guo, Jing Huang, Haoran Xie, Fu Lee Wang, Jing Qin, Jun Wang, Mesh Defiltering: Learning Normal Variations for Recovering Lost Geometry, IEEE Transactions on Visualization and Computer Graphics *(under review)* 7. Mingqiang Wei, Haoran Xie, Weixin Si, Jianhuang Wu, Jing Qin, Jun Wang, Selectively-Guided Normal Filtering for Geometric Texture Removal *(under preparation)*
Project Leader	**Dr LI Chunxiao, HPE**
Project Title *(Ref No.)*	Basic Psychological Need Satisfaction, Stress Responses, and Sport Injuries among University Athletes: A Pilot Study *(SFRS-3)*
Output:	Journal/ book 1. Li, C.*, Ivarsson, A., & Lam, L. T., Basic Psychological Need Satisfaction, Stress, and Sport Injury among University Athletes: A

	Four-Wave Prospective Survey *(under preparation)*
Project Leader	**Dr LEUNG King Shun, MIT**
Project Title *(Ref No.)*	Topological Structure of Self-affine Fractals *(SFRS-5)*
Output:	Journal/ book 1. K S Leung & J J Luo*, A characterization of connected self-affine fractals arising from collinear digits. Journal of Mathematical Analysis and Applications. Volume 45, Issue 1, pages 430-443 *(2017)* External Grant 1. GRF On the connectedness of self-affine sets
Project Leader	**Dr MAN Yiu Kwong, MIT**
Project Title *(Ref No.)*	On Computing the Inverse of Vandermonde Matrix *(SFRS-6)*
Output:	Journal/ book *1.* Man Yiu Kwong, On computing the inverse of Vandermonde Matrix, Advances in Theoretical and Applied Mathematics; 13(1),15-21 *(2018)* Conference: 1. International Conference on Scientific Computing, IMECS Title: Solving linear homogeneous recurrence relation via the inverse of Vandermonde Matrix External Grant: 1. GRF On the sequence of measurable amounts and the optimal solution of the water jug problem
Project Leader	**Dr CHAN Man Ho, SES**
Project Title *(Ref No.)*	Alternative Theories of Dark Matter *(SFRS-9)*
Output:	Journal/ book 1. Chan Man Ho* and Hui Hon Ka, Testing the Cubic Galileon Gravity Model by the Milky Way Rotation Curve and the SPARC Data,The Astrophysical Journal, 8561777(8pp), 2018 April 1 *(2018)* 2. Chan Man Ho*, A Possible Signature of Annihilating Dark Matter, Monthly Notices of the Royal Astronomical Society, 474, 2576-2579, 2018 *(2018)* External Grant 1. RGC Testing alternative theories of gravity by astrophysica data