Publication

(A) Journal Paper：

[1] **Jian-Yu Hsieh** and Kuei-Yu Lin, "A 0.7-mW LC voltage-controlled oscillator leveraging switched biasing technique for low phase noise," *IEEE Trans. Circuit and Systems II*: Express Briefs, Vol.66, No. 8, Aug. 2019. **(SCI, Impact factor: 3.25)**

[2] **Jian-Yu Hsieh** and Kuei-Yu Lin, "A 0.6-V low-power variable-gain LNA in 0.18-μm CMOS technology," *IEEE Trans. Circuit and Systems II*: Express Briefs, Feb. 2019. **(SCI, Impact factor: 3.25)**

[3] **Jian-Yu Hsieh**, Wei-Ting Chen and Jen-Ting Lee, "An intelligent power manager with energy harvesting for internet of things applications," *Microwave and Optical Technology Letters*, Vol. 61, No. 1, pp. 271-274, Jan. 2019. **(SCI, Impact factor: 0.933)**

[4] **Jian-Yu Hsieh** and Shey-Shi Lu, "A compact low-power millimeter wave voltage-controlled oscillator by using frequency doubling technique," *Microwave and Optical Technology Letters*, Vol. 59, No. 8, pp. 2095-2098, May 2017. **(SCI, Impact factor: 0.933)**

[5] **Jian-Yu Hsieh**, "Low-noise amplifier by using a signal-reuse wake-up technology," *IET Microwaves, Antennas & Propagation*, Vol. 12, No. 3, pp. 287-294, Mar. 2018. **(SCI, Impact factor: 2.036)**

[6] **Jian-Yu Hsieh**, Yi-Chun Huang, Po-Hung Kuo, Tao Wang and Shey-Shi Lu, "A 0.45-V low-power OOK/FSK RF receiver in 0.18 μm CMOS technology for implantable medical applications," *IEEE Transactions on Circuits and Systems I:* Regular Papers, Vol. 63, No. 8, pp. 1123-1130, Aug. 2016. (**SCI, Impact factor: 3.934**)

[7] **Jian-Yu Hsieh**, Tao Wang, and Shey-Shi Lu, "A 90-nm CMOS V-band low-power image-reject receiver front-end with high-speed auto-wake-up and gain controls," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 64, No. 2, pp. 541 – 549, 2016. **(SCI, Impact factor: 3.756)**

[8] Po-Hung Kuo, Jui-Chang Kuo, Hsiao-Ting Hsueh, **Jian-Yu Hsieh**, Yi-Chun Huang, Tao Wang, Yen-Hung Lin, Chih-Ting Lin, Yao-Joe Yang, and Shey-Shi Lu, "A smart CMOS assay SoC for rapid blood screening test of risk prediction," *IEEE Transactions on Biomedical Circuits and Systems*, 2015. **(SCI, Impact factor: 4.252)**

[9] **Jian-Yu Hsieh**, Po-Hung Kuo, Yi-Chun Huang, Yu-Jie Huang, Rong-Da Tsai, Tao Wang,

Hung-Wei Chiu, Yao-Hung Wang, and Shey-Shi Lu, "A remotely controlled locomotive IC driven by electrolytic bubbles and wireless powering," *IEEE Transactions on Biomedical Circuits and Systems*, Vol. 8, No. 6, pp. 787-798, Jan. 2015. **(SCI, Impact factor: 4.252)**

[10] **Jian-Yu Hsieh**, Tao Wang, and Shey-Shi Lu, "A 1.5-mW, 2.4 GHz quasi-circulator with high transmitter-to-receiver isolation in CMOS Technology," *IEEE Microwave and Wireless Components Letters*, Vol. 24, No. 12, pp. 872-874, Sep. 2014. **(SCI, Impact factor: 2.374)**

[11] Kuan-Ting Lin, Yu-Jen Chen, **Jian-Yu Hsieh**, Shuo-Hung Chang, Ying-Jay Yang, Jung-Tang Huang, and Shey-Shi Lu, "Gold plated carbon nanotube bundle antenna for millimeter-wave applications," *IEEE Electron Device Letters*, Vol. 35, No. 3, pp. 378-380, Jan. 2014. **(SCI, Impact factor: 3.753)**

[12] **Jian-Yu Hsieh**, Tao Wang, and Shey-Shi Lu, "Wideband low-noise amplifier by LC load-reusing technique," *IET Electronics Letters*, Vol. 45, No. 25, pp. 1280-1281, Dec. 2009. **(SCI, Impact factor: 1.343)**

[13] Shuenn-Yuh Lee and **Jian-Yu Hsieh**, "Analysis and implementation of a 0.9-V voltage-controlled oscillator with low phase noise and low power dissipation," *IEEE Trans. Circuit and Systems-II*: Express Briefs, Vol. 55, No. 7, pp. 624-627, July 2008. **(SCI, Impact factor: 3.25)**

(B) Conference Paper：

[1] **Jian-Yu Hsieh**, Wei-Ting Chen, and Hui-Kai Yu, "A low-power implantable temperature detection system with wireless power transmission for medical applications," in *Proc. 16th International Conference on Automation Technology*, Taipei, Taiwan, Nov. 2019.

[2] **Jian-Yu Hsieh**, Kuei-Yu Lin, and Hsueh-Chien Kuo, "A low-power variable-gain LNA," in *Proc. Multidisciplinary Perspectives in Engineering & Technology*, Tokyo, Japan, Jan. 2019.

[3] **Jian-Yu Hsieh** and Jen-Ting Lee, "A low-power VCO," in *Proc. Multidisciplinary Perspectives in Engineering & Technology*, Tokyo, Japan, Jan. 2019.

[4] **Jian-Yu Hsieh**, Tao Wang, Hung-Wei Chiu, Yo-Sheng Lin, Shey-Shi Lu, and Kuei-Yu Lin, "Frequency responses of noise figure and input matching for low-noise

amplifier design," in *Proc. International Conference on Recent Advances in Engineering and Technology*, Tokyo, Japan, Aug. 2017.

[5] **Jian-Yu Hsieh**, Jen-Ting Lee, Wei-Ting Chen, Kuei-Yu Lin, Xiang-Wei You, "An intelligent power manager with solar and wireless energy harvesting for internet of things applications," in *Proc. International Conference on Recent Advances in Engineering and Technology*, Tokyo, Japan, Aug. 2017.

[6] Ching-Da Wu, **Jian-Yu Hsieh**, Chun-Han Wu, Yang-Sheng Cheng, Chun-Chang Wu, and Shey-Shi Lu, "An 1.1 V 0.1-1.6 GHz tunable-bandwidth elliptic filter with 6 dB linearity improvement by precise zero location control in 40 nm CMOS technology for 5G applications," in *Proc. International Symposium on Circuits and Systems*, pp. Baltimore, MD, USA, May 2017.

[7] **謝建宇**、陳威廷，無線充電智慧管理系統，民生電子研討會，台北，Nov.2017.

[8] Po-Hung Kuo, Jui-Chang Kuo, Hsiao-Ting Hsueh, **Jian-Yu Hsieh**, Yi-Chun Huang, Tao Wang, Yen-Hung Lin, Chih-Ting Lin, Yao-Joe Yang, and Shey-Shi Lu, "A smart CMOS assay SoC for rapid blood screening test of risk prediction," *IEEE International Solid-State Circuits Conference Digest of Technical Papers*, pp. 390-391, San Francisco CA, Feb. 2015.

[9] Po-Hung Kuo, **Jian-Yu Hsieh**, Yi-Chun Huang, Yu-Jie Huang, Rong-Da Tsai, Tao Wang, Hung-Wei Chiu, and Shey-Shi Lu, "A remotely controlled locomotive IC driven by electrolytic bubbles and wireless powering," *IEEE International Solid-State Circuits Conference Digest of Technical Papers*, pp. 322-323, San Francisco CA, Feb. 2014.

[10] Kuan-Ting Lin, **Jian-Yu Hsieh**, Yu-Jen Chen, Shuo-Hung Chang, Ying-Jay Yang, and Shey-Shi Lu, "Gold plating carbon nanotube antenna integrated with voltage control oscillator," *Progress in Electromagnetics Research Symposium*, pp. 1726-1729, Stockholm, Sweden, Aug. 2013.

[11] Wei-Hsiang Hung, Kuan-Ting Lin, **Jian-Yu Hsieh**, and Shey-Shi Lu, "A 2–6GHz broadband CMOS low-noise amplifier with current reuse topology utilizing a noise-shaping technique," *IEEE International Symposium on Circuits and Systems*, pp. 1291-1294, Brazil, May 2011.

[12] Kuan-Ting Lin, **Jian-Yu Hsieh**, Tao Wang, Cheng-Hung Li, Neng-Kai Chang, Shey-Shi Lu, Shuo-Hung Chang, and Ying-Jay Yang, "Electromagnetic wave absorption in K band and V band with carbon microcoils," *Progress in Electromagnetics Research*

Symposium, pp1156-1160, Moscow, Russia, August 2009.

[13] **Jian-Yu Hsieh** and Shuenn-Yuh Lee, "Theoretical analysis and implementation of a variable gain even harmonic mixer," in *Proc. IEEE 2007 VLSI-DAT International Symposium*, pp. 1-4, Hsinchu, Taiwan, April 2007.

[14] **Jian-Yu Hsieh**, Shuenn-Yuh Lee, and Chia-Chan Chang "Analysis and implementation of a voltage-controlled oscillator with low phase noise and low power dissipation," in *Proc. IASTED Circuits, Signals, and Systems*, Banff, Canada, July 2007.

[15] **Jian-Yu Hsieh** and Shuenn-Yuh Lee, "Analysis and realization of a low noise amplifier with high linearity and low power dissipation," in *Proc. IEEE Region 10 TENCON 2007*, pp. 1-4, Taipei, Taiwan, Oct. 2007.

(c) Patent：

[1] 呂學士；楊英杰；張所鋐；謝建宇；林冠廷；汪濤；蘇志中；李振宏；張能凱「電磁波吸收元件及電磁波吸收裝置」，中華民國專利第 I369943 號，2012 年 8 月 1 日。

Award

[1] 2014 國家晶片系統設計中心晶片設計優等設計獎 CIC Outstanding Chip Design Award 晶片論文 "A remotely controlled locomotive IC driven by electrolytic bubbles and wireless powering"

Project

[1] 前瞻下世代行動通訊終端關鍵技術研究(3/3) MOST 105-2622-8-002 -002 (105.10~106.09) 計畫經費:1,360,000 元

[2] 105 教卓 R 計畫第六屆職涯導師、R12 強化大學入門課程計畫 (105.08~106.07) 計畫經費: 7,600 元

[3] 無線感測智慧血管支架系統之開發－子計畫三：血管支架之混合訊號和無線傳輸整合晶片設計 (II) MOST MOST 107-2221-E-197-032 (107.08~108.07) 計畫經費: 870,000 元

[4] 無線感測智慧血管支架系統之開發－子計畫三：血管支架之混合訊號和無線傳輸整合晶片設計 (III) MOST 108-2221-E-197-028 (108.08~109.07) 計畫經費: 714,000 元