CURRICULUM VITAE

Philip K.T. MOK

Professor and Associate Head
Department of Electronic and Computer Engineering
The Hong Kong University of Science and Technology
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EDUCATION

1989-1995	Ph.D.	Electrical and Computer Engineering, University of Toronto, Canada
1986-1989	M.A.Sc.	Electrical Engineering, University of Toronto, Canada
1982-1986	B.A.Sc.	Electrical Engineering, University of Toronto, Canada

PROFESSIONAL EXPERIENCE

07/2014 - present	Associate Head for UG Studies, Dept of Electronic and Computer Engineering, HKUST, Hong Kong
07/2010 - present	Professor, Dept of Electronic and Computer Engineering (ECE), HKUST, Hong Kong
07/2013 - 06/2014	Visiting Professor, Department of Electronic Engineering, Hanyang University, Seoul, Korea
10/2009 - 12/2013	Adjunct Professor, HKUST Shenzhen IER PKU SOC Key Laboratory, Shenzhen Branch, China
01/2004 - 06/2010	Associate Professor, Dept of ECE, HKUST, Hong Kong
01/1995 - 12/2003	Assistant Professor, Dept of ECE, HKUST, Hong Kong

Career HIGHLIGHTS

- Publications:	175	64 Journal and 111 Conference papers - including 26 publications in *IEEE Journal of Solid-State Circuits* (JSSC) and 21 publications in *IEEE Trans. on Circuits and Systems – I & II* (TCAS)
- Patents:	21	16 US Patents granted and 4 Patents in progress 10 of them have been licensed out through the university
- Total Citations:	7610	(h-index = 42, i10-index=94) from Google scholar as 05/2017
- Research Grants:	45	26 as Principle Investigator, 19 as Co-Investigator
- Grad Students:	41	19 PhD (includes 8 in progress), 22 MPhil (includes 2 in progress)
- Awards:	23	3 Teaching Excellence Appreciation Awards from HKUST and 7 Best Student Paper Awards

- Fellow, *Institute of Electrical and Electronics Engineers, Inc.* (*IEEE*)
- Distinguished Lecturer of *IEEE Solid-State Circuits Society*
- Associate Editors of *IEEE JSSC*, *IEEE TCAS-I* and *IEEE TCAS-II*
- General Co-Chair of *2013 IEEE Int'l Conf. on Electron Devices and Solid-State Circuits*
- International Technical Program Committee Member of *IEEE ISSCC* and *ESSCIRC*
- Research Grants Council, Engineering Panel member, University Grants Committee, HKSAR
- Electronics and Telecommunications Training Board member, Education Bureau, Government Secretariat, HKSAR
- Electricity Ordinance Disciplinary Tribunal Panel member and Electricity Ordinance Appeal Board Panel member, The Secretary for Economic Development and Labour, HKSAR

RESEARCH INTEREST

Power semiconductor devices, processing technologies and circuit designs for power electronics applications; CMOS/BiCMOS circuits, devices and technologies for telecommunications applications; analogue integrated circuit designs; power integrated circuit designs.

PAPER AWARDS

- Best Student Paper Award, *IEEE Custom Integrated Circuits Conference*, Orlando, FL, USA, twice in Sept 2002 and Sept 2009.
- Student Paper Contest, 1st Prize, *IEEE International Conference on Electron Devices and Solid-State Circuits*, Hong Kong, twice in Dec 2008 and Dec 2010.
- Student Paper Award, 1st Prize Winner, *The 10th IEEE Asia Pacific Conference on Circuits and Systems* (APCCAS 2010), Kuala Lumpur, Malaysia, Dec 2010.

PROFESSIONAL SERVICES

- Associate Editor:
  - *IEEE Journal of Solid-State Circuits* (2006-2011)
  - *IEEE Transaction on Circuits and Systems – I* (2007-2009, 2016-present)
  - *IEEE Transaction on Circuits and Systems – II* (2005-2007, 2012-2015)
- Conference Program Committee:
  - General Co-chair, *2003 IEEE Int'l Conf. on Electronic Devices and Solid-State Circuits*
  - Int'l Tech. Prog. Comm., *IEEE Int'l Solid-State Circuits Conference* (2004-2010, 2014-2016)
  - Tech. Prog. Comm., *European Solid-State Circuits Conference* (2011-2013)
- Member of Engineering Panel, *Research Grants Council*, UGC, Hong Kong (2009-2015)

JOURNAL PUBLICATIONS

[64] *Yang F.,* and ***Mok P.K.T.***, "A Nanosecond-Transient Fine-Grained Digital LDO with Multi-Step Switching Scheme and Asynchronous Adaptive Pipeline Control", *IEEE Journal of Solid-State Circuits*, to appear.

[63] *Gao Y.*, *Li L.*, and ***Mok P.K.T.***, "An AC Input Switching-Converter-Free LED Driver with Low-Frequency-Flicker Reduction", *IEEE Journal of Solid-State Circuits*, Vol. 52, No. 5, pp. 1424 - 1434, May 2017.

[62] Cheng L., Ki W.-H., *Yang F.*, ***Mok P.K.T.***, and Jing X., "Predicting Sub-Harmonic Oscillation of Voltage-Mode Switching Converters Using a Circuit-Oriented Geometrical Approach", *IEEE Trans. Circuits and Systems – I*, Vol. 64, No. 3, pp. 717 - 730, Mar 2017.

[61] *Liu X.*, ***Mok P.K.T.***, Jiang J., and Ki W.-H., "Analysis and Design Considerations of Integrated 3-Level Buck Converters", *IEEE Trans. Circuits and Systems – I*, Vol. 63, No. 5, pp. 671 - 682, May 2016.

[60] *Teh Y.-K.**, and ***Mok P.K.T.***, "DTMOS-based Pulse Transformer Boost Converter with Complementary Charge Pump for Multi-Source Energy Harvesting," *IEEE Trans. Circuits and Systems – II*, Vol. 63, No. 5, pp. 508 - 512, May 2016.

[59] *Teh Y.-K.**, and ***Mok P.K.T.***, "A Bipolar Output Voltage Pulse Transformer Boost Converter with Charge Pump Assisted Shunt Regulator for Thermoelectric Energy Harvesting," *Analog Integrated Circuits and Signal Processing*, Vol. 88, No. 2, pp. 319-331, Feb 2016.

[58] *Li L.*, *Gao Y.*, ***Mok P.K.T.***, Sun I.-S.M. and Park N., "A 16-28W 92.8% Efficiency Monolithic Quasi-Resonant LED Driver with Constant-Duty-Ratio Frequency Regulator," *IEEE Trans. Circuits and Systems – II*, to appear.

[57] *Huang C.*, and ***Mok P.K.T.***, "A Delay-Line Based Voltage-to-Duty-Cycle Controller for High-Frequency PWM Switching Converters," *IEEE Trans. Circuits and Systems – II*, Vol. 62, No. 8, pp. 751 - 755, August 2015.

[56] *Kim J.*, ***Mok P.K.T.***, and Kim C., "A 0.15-V Input Energy Harvesting Charge Pump with Dynamic Body Biasing and Adaptive Dead-Time for Efficiency Improvement," *IEEE Journal of Solid-State Circuits*, Vol. 50, No. 2, pp. 414-425, Feb 2015.

[55] *Huang C.*, and ***Mok P.K.T.***, "Undershoot suppression technique for fully integrated pulse-width modulated switching converters," *Electronics Letters*, Vol. 51, No. 1, pp. 96-97, 8 January 2015.

[54] *Teh Y.-K.*, and ***Mok P.K.T.***, "Design of Transformer-Based Boost Converter for High Internal Resistance Energy Harvesting Sources With 21 mV Self-Startup Voltage and 74% Power Efficiency," *IEEE Journal of Solid-State Circuits*, Vol. 49, No. 11, pp. 2694-2704, Nov 2014.

[53] *Teh Y.-K.*, and ***Mok P.K.T.***, "A Stacked Capacitor Multi-Microwatts Source Energy Harvesting Scheme With 86 mV Minimum Input Voltage and ±3 V Bipolar Output Voltage," *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, Vol. 4, No. 3, pp. 313-323, Sept 2014.

[52] *Chan M.P.*, and ***Mok P.K.T.***, "A Monolithic Digital Ripple-Based Adaptive-Off-Time DC-DC Converter with a Digital Inductor Current Sensor," *IEEE Journal of Solid-State Circuits*, Vol. 49, No. 8, pp. 1837-1847, Aug 2014.

[51] *Huang C.*, and ***Mok P.K.T.***, "A 100 MHz 82.4% Efficiency Package Bondwire Based Fully-Integrated Buck Converter with Flying Capacitor for Area Reduction," *IEEE Journal of Solid-State Circuits*, Vol. 48, no. 12, pp. 2977-2988, Dec 2013.

[50] *Huang C.*, and ***Mok P.K.T.***, "An 84.7% Efficiency 100 MHz Package Bondwire Based Fully-Integrated Buck Converter with Precise DCM Operation and Enhanced Light-load Efficiency," *IEEE Journal of Solid-State Circuits*, Vol. 48, no. 11, pp. 2595-2607, Nov 2013.

[49] *Jing X.*, and ***Mok P.K.T.***, "Fast Fixed-Frequency Adaptive-On-Time Boost Converter with Light Load Efficiency Enhancement and Predictable Noise Spectrum," *IEEE Journal of Solid-State Circuits*, Vol. 48, No. 10, pp. 2442 - 2456, Oct. 2013.

[48] *Jing X.*, and ***Mok P.K.T.***, "Power Loss and Switching Noise Reduction Techniques for Single-Inductor Multiple-Output Regulator," *IEEE Trans. Circuits and Systems - I*, Vol. 60, No. 10, pp. 2788 - 2798, Oct 2013.

[47] *Chan M.P.*, and ***Mok P.K.T.***, "On-Chip Digital Inductor Current Sensor for Monolithic Digitally Controlled DC-DC Converter," *IEEE Trans. Circuits and Systems - I*, Vol. 60, No. 5, pp. 1232 - 1240, May 2013.

[46] *Ho E.N.Y.*, and ***Mok P.K.T.***, "Design of PWM Ramp Signal in Voltage-Mode CCM Random Switching Frequency Buck Converter for Conductive EMI Reduction," *IEEE Trans. Circuits and Systems - I*, Vol. 60, No. 2, pp. 505-515, Feb 2013.

[45] *Ho E.N.Y.*, and ***Mok P.K.T.***, "Wide Loading Range Fully Integrated LDR with Power Supply Ripple Injection Filter," *IEEE Trans. Circuits and Systems - II*, Vol. 59, No. 6, pp. 356-360, Jun 2012.

[44] *Kwong K.C.*, He J., ***Mok P.K.T.***, and Chan M., "Phase-Change Memory RESET Model Based on Detailed Cell Cooling Profile," *IEEE Trans. Electron Devices*, Vol. 58, No. 10, pp. 3635-3638, Oct 2011.

[43] *Jing X.*, ***Mok P.K.T.***, and Lee M.C., "A Wide-Load-Range Constant-Charge-Auto-Hopping Control Single-Inductor-Dual-Output Boost Regulator with Minimized Cross-Regulation," *IEEE Journal of Solid-State Circuits*, Vol. 46, No. 10, pp. 2350-2362, Oct 2011.

[42] *Chan M.P.*, and ***Mok P.K.T.***, "Design and Implementation of Fully Integrated Digitally Controlled Current-Mode Buck Converter", *IEEE Trans. Circuits and Systems - I*, Vol. 58, No. 8, pp. 1980-1991, Aug 2011.

[41] *Wu P.Y.*, and ***Mok P.K.T.***, "A Two-phase Switching Hybrid Supply Modulator for RF Power Amplifiers with 9% Efficiency Improvement", *IEEE Journal of Solid-State Circuits*, Vol. 45, No. 12, pp. 2543-2556, Dec 2010.

[40] Leung K.N., *Mai Y.Y.*, and ***Mok P.K.T.***, "A Chip-Area Efficient Voltage Regulator for VLSI Systems," *IEEE Trans. Very Large Scale Integration Systems*, Vol. 18, No. 12, pp. 1757-1762, Dec 2010.

[39] *Wu P.Y.*, and ***Mok P.K.T.***, "Comparative Studies of Common Fix-frequency Controls for Reference Tracking and Enhancement by End-point Prediction", *IEEE Trans. Circuits and Systems - I*, Vol. 57, No. 11, pp. 3023-3034, Nov 2010.

[38] *Wu P.Y.*, *Tsui S.Y.S.*, and ***Mok P.K.T.***, "Area- and Power-efficient Monolithic Buck Converters with Pseudo-Type III Compensation", *IEEE Journal of Solid-State Circuits*, Vol. 45, No. 8, pp. 1446-1455, Aug 2010.

[37] *Ho E.N.Y.*, and ***Mok P.K.T.***, "A Capacitor-less CMOS Active Feedback Low Dropout Regulator with Slew-Rate Enhancement for Portable On-Chip Application", *IEEE Trans. Circuits and Systems - II*, Vol. 57, No. 2, pp. 80-84, Feb 2010. **(Top 25 most downloaded TCAS-II papers: #3 in 2010 Jan-Jun)**

[36] *Man T.Y.*, ***Mok P.K.T.***, and Chan M., "A 0.9-V Input Discontinuous-Conduction-Mode Boost Converter with CMOS-Control Rectifier," *IEEE Journal of Solid-State Circuits*, Vol. 43, No. 9, pp. 2036-2046, Sept 2008.

[35] *Mai Y.Y.*, and ***Mok P.K.T.***, "A Constant Frequency Output-Ripple-Voltage-Based Buck Converter without Using Large ESR Capacitor", *IEEE Trans. Circuits and Systems - II*, Vol. 55, No. 8, pp. 748-752, Aug 2008.

[34] *Man T.Y.*, Leung K.N., *Leung C.Y.*, ***Mok P.K.T.***, and Chan M., "Development of Single-Transistor-Control LDO Based on Flipped Voltage Follower for SoC," *IEEE Trans. Circuits and Systems - I*, Vol. 55, No. 5, pp. 1392-1401, Jun 2008. **(Top 25 most downloaded TCAS-I papers: #18 in 2008, #22 in 2009 and #22 in 2010 Jan-Jun)**

[33] *Wu P.Y.*, and ***Mok P.K.T.***, "A Monolithic Buck Converter with Near-Optimum Reference Tracking Response Using Adaptive-Output-Feedback", *IEEE Journal of Solid-State Circuits*, Vol. 42, No. 11, pp. 2441-2450, Nov 2007.

[32] *Man T.Y.*, ***Mok P.K.T.***, and Chan M., "A High Slew-Rate Push-Pull Output Amplifier for Low-Quiescent Current Low-Dropout Regulators with Transient-Response Improvement," *IEEE Trans. Circuits and Systems - II*, Vol. 54, No. 9, pp. 755-759, Sept 2007. **(Top 25 most downloaded TCAS-II papers: #7 in 2008, #11 in 2009, #15 in 2010 Jan-Jun)**

[31] Leung K.N., Lo C.H., ***Mok P.K.T.***, *Mai Y.Y.*, Leung W.Y., and Chan M.J., "Temperature-compensated CMOS ring oscillator for power-management circuits", *Electronics Letters*, Vol. 43, Issue 15, pp. 787-789, 19 July 2007.

[30] *Lee H.*, and ***Mok P.K.T.***, "A SC Voltage Doubler with Pseudo-Continuous Output Regulation Using a Three-Stage Switchable Opamp," *IEEE Journal of Solid-State Circuits*, Vol. 42, No. 6, pp. 1216-1229, Jun 2007.

[29] *Lau S.K.*, ***Mok P.K.T.*** and Leung K.N., "A Low-Dropout Regulator for SoC with Q-Reduction," *IEEE Journal of Solid-State Circuits*, Vol. 42, No. 3, pp. 658-664, Mar 2007.

[28] *Siu M.*, ***Mok P.K.T.***, Leung K.N., Lam Y.H., and Ki W.H., "A Voltage-Mode PWM Buck Regulator with End-Point Prediction," *IEEE Trans. Circuits and Systems - II*, Vol. 53, No. 4, pp. 294-298, April 2006.

[27] *Leung C.Y.*, ***Mok P.K.T.*** and Leung K.N., "A 1-V Integrated Current-Mode Boost Converter in Standard 3.3/5-V CMOS Technologies," *IEEE Journal of Solid-State Circuits*, Vol. 40, No. 11, pp. 2265-2274, Nov 2005. **(Most-Read JSSC Articles for 2005)**

[26] *Lee H.*, ***Mok P.K.T.***, and Leung K.N., "Design of Low-Power Analog Drivers Based on Slew-Rate Enhancement Circuits for CMOS Low-Dropout Regulators," *IEEE Trans. Circuits and Systems - II*, Vol. 52, No. 9, pp. 563-567, Sept 2005.

[25] *Leung C.Y.*, ***Mok P.K.T.***, Leung K.N. and Chan M., "An Integrated CMOS Current-Sensing Circuit for Low-Voltage Current-Mode Buck Regulator," *IEEE Trans. Circuits and Systems - II*, Vol. 52, No. 7, pp. 394-397, July 2005.

[24] *Lee H.*, and ***Mok P.K.T.***, "Switching Noise and Shoot-Through Current Reduction Techniques for Switched-Capacitor Voltage Doubler," *IEEE Journal of Solid-State Circuits*, Vol. 40, No. 5, pp. 1136-1146, May 2005.

[23] *Lee H.*, and ***Mok P.K.T.***, "Advances in Active-Feedback Frequency Compensation with Power Optimization and Transient Improvement," *IEEE Trans. Circuits and Systems - I*, Vol.

51, No. 9, pp. 1690-1696, Sept 2004. **(Top 20 most downloaded TCAS-I papers: #13 in 2004)**

[22] Lam S., Lee Wai-Kit, Chan A.C.K., ***Mok P.K.T.***, Ko P.K., and Chan M., "A Workable Use of Floating-Body Silicon-on-Sapphire MOSFET as a Transconductance Mixer," *Japanese Journal of Applied Physics*, Vol. 43, No. 4B, pp. 2176-2179, Apr 2004.

[21] *Yiu C.L.*, and ***Mok P.K.T.***, "Process-independent analogue data driver for polysilicon TFT AMLCD", *International Journal of Electronics*, Vol. 91, No. 4, pp. 199-210, April 2004.

[20] Lee W.K., Man T.Y., ***Mok P.K.T.***, Ko P.K., and Chan M., "The Impact of the Distributed RC Effect on High Frequency Noises Modeling of Bipolar Transistor", *Solid-State Electronics*, Vol. 48, Issue 2, pp. 297-308, Feb 2004.

[19] *Lee C.F.*, and ***Mok P.K.T.***, "A Monolithic Current-Mode CMOS DC-DC Converter with On-Chip Current-Sensing Technique", *IEEE Journal of Solid-State Circuits*, Vol. 39, No. 1, pp. 3-14, Jan 2004. **(Most-Read JSSC Articles for 2004)**

[18] *Leung K.N.*, and ***Mok P.K.T.***, "A Capacitor-Free CMOS Low-Dropout Regulator with Damping-Factor-Control Frequency Compensation," *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 10, pp. 1691-1702, Oct 2003.

[17] *Lee H.*, *Leung K.N.*, and ***Mok P.K.T.***, "A Dual-Path Bandwidth Extension Amplifier Topology with Dual-Loop Parallel Compensation," *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 10, pp. 1739-1744, Oct 2003.

[16] Lam S., ***Mok P.K.T.***, Ko P.K., and Chan M., "High-Isolation Bonding Pad Design for Silicon RFIC up to 20 GHz," *IEEE Electron Device Letters*, Vol. 24, No. 9, pp. 601-603, Sept 2003.

[15] Lam S., ***Mok P.K.T.***, Ki W.H., Ko P.K., and Chan M., "An Enhanced Compact Waffle MOSFET with Low Drain Capacitance from a Standard Submicron CMOS Technology", *Solid-State Electronics*, Vol. 47, Issue 5, pp. 785-789, May 2003.

[14] *Leung K.N.*, ***Mok P.K.T.***, and *Leung C.Y.*, "A 2-V 23-μA 5.3-ppm/°C Curvature-Compensated CMOS Bandgap Voltage Reference", *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 3, pp. 561-564, Mar 2003.

[13] *Lee H.*, and ***Mok P.K.T.***, "Active-Feedback Frequency-Compensation Technique for Low-Power Multistage Amplifiers", *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 3, pp. 511-520, Mar 2003.

[12] *Leung K.N.*, and ***Mok P.K.T.***, "A CMOS Voltage Reference Based on Weighted ΔV_{GS} for CMOS Low-Dropout Linear Regulators," *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 1, pp. 146-150, Jan 2003.

[11] Ma D., Ki W.H., Tsui C.Y., and ***Mok P.K.T.***, "Single-Inductor Multiple-Output Switching Converters with Time-Multiplexing Control in Discontinuous Conduction Mode," *IEEE Journal of Solid-State Circuits*, Vol. 38, No. 1, pp. 89-100, Jan 2003.

[10] *Leung K.N.*, and ***Mok P.K.T.***, "A Sub-1-V 15-ppm/°C CMOS Bandgap Voltage Reference without requiring Low Threshold Voltage Device," *IEEE Journal of Solid-State Circuits*, Vol. 37, No. 4, pp. 526-530, April 2002.

[9] *Leung K.N.*, and ***Mok P.K.T.***, "Analysis of MultiStage Amplifier-Frequency Compensation", *IEEE Trans. Circuits and Systems - I*, Vol. 48, No. 9, pp. 1041-1056, Sept. 2001. **(Top 25 most downloaded TCAS-I papers: #23 in 2005, #10 in 2008, #16 in 2009 and #8 in 2010 Jan-Jun)**

[8] *Leung K.N.*, and ***Mok P.K.T.***, "Nested Miller Compensation in Low-Power CMOS Design," *IEEE Trans. Circuits and Systems - II*, Vol. 48, No. 4, pp. 388-394, April 2001.

[7] Zhang S.D., Zhu, C., Sin J.K.O., Li J.N., and ***Mok P.K.T.***, "Ultra-Thin Elevated Channel Poly-Si TFT Technology for Fully-Integrated AMLCD System on Glass", *IEEE Trans. Electron Devices*, Vol. 47, No. 3, pp. 569-575, Mar. 2000.

[6] *Leung K.N.*, ***Mok P.K.T.***, Ki W.H., and Sin J.K.O., "Three-Stage Large Capacitive Load Amplifier with Damping-Factor-Control Frequency Compensation", *IEEE Journal of Solid-State Circuits*, Vol. 35, No. 2, pp. 221-230, Feb. 2000.

[5] Zhang S.D., Zhu C., Sin J.K.O., and ***Mok P.K.T.***, "A Novel Ultra-Thin Elevated Channel Low Temperature Poly-Si TFT", *IEEE Electron Device Letters*, Vol. 20, No. 11, pp. 569-571, Nov. 1999.

[4] Cai J., Sin J.K.O., ***Mok P.K.T.***, Ng W.T., and Lai P.P.T., "A New Lateral Trench-Gate Conductivity Modulated Power Transistor", *IEEE Trans. Electron Devices*, Vol. 46, No. 8, pp. 1788-1793, Aug. 1999.

[3] Chan W.M.T., Sin J.K.O., ***Mok P.K.T.***, and Wong S.S., "A Power IC Technology with Excellent Cross-talk Isolation," *IEEE Electron Device Letters*, vol. 17, pp. 467-469, Oct. 1996.

[2] ***Mok P.K.T.***, Nezar A., and Salama C.A.T., "A Self-Aligned Trenched Cathode Lateral Insulated Gate Bipolar Transistor with High Latch-Up Resistance," *IEEE Trans. Electron Devices*, vol. 42, pp. 2236-2239, Dec. 1995.

[1] ***Mok P.K.T.***, and Salama C.A.T., "A Novel High-Voltage High-Speed MESFET Using a Standard GaAs Digital IC Process," *IEEE Trans. Electron Devices*, vol. 41, pp. 246-250, Feb. 1994.

CONFERENCE PUBLICATIONS

[111] *Yang F.,* and ***Mok P.K.T.***, "A 65nm Inverter-Based Low-Dropout Regulator with Rail-to-Rail Regulation and over -20dB PSR at 0.2V Lowest Supply Voltage", *IEEE International Solid-State Circuits Conference*, San Francisco, CA, USA, Feb 2017, pp. 106-107.

[110] *Gao Y.*, *Li L.*, and ***Mok P.K.T.***, "An AC input inductor-less LED driver for visible-light-communication applications with 8Mbps data rate and 6.4% low-frequency-flicker", *IEEE International Solid-State Circuits Conference*, San Francisco, CA, USA, Feb 2017, pp. 384-385.

[109] *Liu X.*, Zhang H., Zhao M. Chen X., ***Mok P.K.T.***, and Luong H.C., "A 2.4V 23.9dBm 35.7%-PAE -32.1dBc-ACLR LTE-20MHz envelope-shaping-and-tracking system with a multiloop-controlled AC-coupling supply modulator and a mode-switching PA", *IEEE International Solid-State Circuits Conference*, San Francisco, CA, USA, Feb 2017, pp. 38-39.

[108] Zhang C., Liang T., and ***Mok P.K.T.***, and Yu W., "FPGA Implementation of the Coupled Filtering Method", *2016 IEEE International Conference on Bioinformatics and Biomedicine*, Shenzhen, China, Dec 2016.

[107] *Wan Q.*, Teh Y.-K.*, ***Mok P.K.T.***, "Analysis of a Reconfigurable TEG Array for High Efficiency Thermoelectric Energy Harvesting", *IEEE Asia Pacific Conference on Circuits and Systems*, Jeju, Korea, Oct 2016, pp. 662-663.

[106] *Pan S.*, and ***Mok P.K.T.***, "A Single on/off Reference Tracking Buck Converter using Turning Point Prediction for DVFS Application", *IEEE Asia Pacific Conference on Circuits and Systems*, Jeju, Korea, Oct 2016, pp. 95-96.

[105] *Yang F.*, *Lu Y.*, and ***Mok P.K.T.***, "A Comparative Analysis on Binary and Multiple-Unary Weighted Power Stage Design for Digital LDO", *IEEE Asia Pacific Conference on Circuits and Systems*, Jeju, Korea, Oct 2016, pp. 41-42.

[104] *Liu X.*, Jiang J., ***Mok P.K.T.***, and Ki W.-H., "Methods for Measuring Loop-Gain Function of High-Frequency DC-DC Converters", *IEEE Asia Pacific Conference on Circuits and Systems*, Jeju, Korea, Oct 2016, pp. 247-248.

[103] Cai Y., Zou X., *Gao Y.*, *Li L.*, ***Mok P.K.T.***, and Lau K.M., "Efficient Use of Uniform GaN HVLEDs for Small-Flicker General Illumination Applications with Converter-free LED Drivers", *Compound Semiconductor Week*, Toyama, Japan, Jun 2016.

[102] *Li L.*, *Gao Y.*, and ***Mok P.K.T.***, "A Multiple-String Hybrid LED Driver with 97% Power Efficiency and 99.6% Power Factor", *2016 Symposium on VLSI Circuits*, Honolulu, HI, USA, Jun 2016, pp. 106-107.

[101] *Liu X., Huang C.*, and ***Mok P.K.T.***, "A 50-MHz 90% Efficiency 5-V Input 3-W Wide Output Range 3-Level Buck Converter with Real-Time Calibration and Fast Responses for DVS in 65nm CMOS", *2016 Symposium on VLSI Circuits*, Honolulu, HI, USA, Jun 2016, pp. 52-53.

[100] *Li L.*, *Gao Y.*, and ***Mok P.K.T.***, "A More Accurate Steady State Analysis of Zero-Voltage Switching Quasi-Resonant Converters", *IEEE International Symposium on Circuits and Systems*, Montreal, QC, Canada, May 2016, pp. 1606-1609.

[99] *Gao Y.*, *Li L.*, and ***Mok P.K.T.***, "An AC Powered Converter-Free LED Driver with Low Flicker", *21st Asia and South Pacific Design Automation Conference*, Macao, Jan 2016, pp. 11-12.

[98] *Yang F.,* and ***Mok P.K.T.***, "Fast-Transient Asynchronous Digital LDO with Load Regulation Enhancement by Soft Multi-Step Switching and Adaptive Timing Techniques in 65-nm CMOS*," IEEE Custom Integrated Circuits Conference*, San Jose, California, USA, Sept 2015, to appear.

[97] *Yang F.,* and ***Mok P.K.T.***, "A 0.6-1V Capacitor-Less Asynchronous Digital LDO with Fast Transient Response Achieving 9.5b over 500mA Loading Range in 65-nm CMOS*," The 41st European Solid-State Circuits Conference*, Graz, Austria, Sept 2015, to appear.

[96] *Teh Y.-K.*, and ***Mok P.K.T.***, "Design Consideration of Recent Advanced Low-Voltage CMOS Boost Converter for Energy Harvesting", *The 22nd European Conference on Circuit Theory and Design*, Trondheim, Norway, Aug 2015, to appear.

[95] *Gao Y.*, *Li L.*, and ***Mok P.K.T.***, "A 5.5W AC Input Converter-Free LED Driver with 82% Low-Frequency-Flicker Reduction, 88.2% Efficiency and 0.92 Power Factor", *2015 Symposium on VLSI Circuits*, Kyoto, Japan, Jun 2015, pp. 286-287.

[94] Fang X., Mak T.H., *Gao Y.*, Lau K.M., ***Mok P.K.T.***, and Sin J.K.O., "A Low Substrate Loss, Monolithically Integrated Power Inductor for Compact LED Drivers", *27th International Symposium on Power Semiconductor Devices and ICs*, Hong Kong, China, May 2015, pp. 53-56.

[93] *Liu X., Huang C.*, and ***Mok P.K.T.***, "Dynamic Performance Analysis of 3-Level Integrated Buck Converters", *IEEE International Symposium on Circuits and Systems*, Lisbon, Portugal, May 2015, pp. 2093-2096.

[92] Jiang J., Lu Y., *Huang C.*, Ki W.-H., and ***Mok P.K.T.***, "A 2-/3-Phase Fully Integrated Switched-Capacitor DC-DC Converter in Bulk CMOS for Energy-Efficient Digital Circuits with 14% Efficiency Improvement", *IEEE International Solid-State Circuits Conference*, San Francisco, CA, USA, Feb 2015, pp. 366-367.

[91] Mak T.H., Liu Z., Chong W.C., *Gao Y.*, Fang X., Sin J.K.O., ***Mok P.K.T***, and Lau K.M., "Integration Scheme toward LED System-on-a-Chip (SoC)", *Solid-State and Organic Lighting (SOLED)*, Canberra, Australia, Dec 2014.

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