康冠敏 助理教授（Assistant Professor, Kuan-Min Kang）



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個人網頁	
研究領域	功率元件、寬能隙半導體、半導體製程

Kuan-Min Kang She received the B.S. degree from the Department of Applied Science, Republic of China Naval Academy, Taiwan, in 2012, and the M.S. degree from the Department of Meteorology and Operational Oceanography, Naval Postgraduate School, Monterey, CA, USA, in 2020. She received the Ph.D. degree from the Institute of Electronics Engineering, National Tsing Hua University, Taiwan, in 2026. In August 2026, she joined the Chung Cheng Institute of Technology, National Defense University, Taiwan, where she is currently an Assistant Professor in the Department of Electrical and Electronic Engineering. Her research interests include power semiconductor devices, wide-bandgap semiconductors, semiconductor device characterization, and semiconductor manufacturing.

※個人學歷：

學校名稱	國別	主修學門系所	學位	起訖年月 (西元年/月)
國立清華大學	中華民國	電子工程研究所	博士	自 2022/09 至 2026/08
海軍 研究院	美國	大氣海洋系	碩士	自 2018/01 至 2020/06
海軍官校	中華民國	應用科學系	學士	自 2008/08 至 2012/07

※個人經歷：

服務機構	服務部門/系所	職稱	起迄年月(西元年/月)
國防大學 理工學院	電機電子工程學系	助理教授	2026 年 8 月迄今

※研究領域：

功率元件	寬能隙半導體	半導體製程	可靠度分析

※教授課程：

大學部	電子學	線性代數
	普通物理實驗	

※ 研究計畫：

項次	計畫名稱	補助單位	負責職務	執行期間
1	採用先進結構和製程開發超低電阻碳化矽電晶體應用在高壓運輸載具和儲能系統(NSTC114－2218－E－002－022)	國科會	博士 研究生	111.8~115.8

※ 論文著述：

(A) 期刊論文

項次	年度	發表著作	收錄資料庫
1	115	**K.-M. Kang***, J.-W. Hu, C.-F. Huang, and A. Castellazzi, “Demonstration of Low-Voltage Lateral Trench Split-Gate Tri-Gate MOSFETs in 4H-SiC,” *ECS Journal of Solid-State Science and Technology*, vol. 15, no. 9, p. 091002, Sep. 2026, (SCIE; IF: 2.4)	SCIE

2	114	**K.-M. Kang***, J.-W. Hu, C.-F. Huang, “Simulation Study on 6.5 kV SiC Trench Gate p-Channel Superjunction Insulated Gate Bipolar Transistor,” *Micromachines*, vol. 16, no. 7, p. 758, Jun. 2025, (SCIE; IF: 3.5)	SCIE
3	114	J.-W. Hu, **K.-M. Kang**, and C.-F. Huang, “A 4H-SiC 1.7 kV Rated TMBS-Embedded UMOSFET,” *IEEE Electron Device Letters*, vol. 46, no. 10, pp. 1829–1832, Oct. 2025, (SCIE; IF: 4.6)	SCIE

(B) 國際研討會論文

項次	年度	發表著作
1	114	J.-W. Hu, J.-Y. Jang, **K.-M. Kang**, C.-F. Huang, T. Gonzaga, and D. Morisette, " Study on Temperature Coefficient of Vth of 4H-SiC MOSFETs on Si-face," 22nd International Conference on Silicon Carbide and Related Materials (ICSCRM 2025), Busan, Korea, 2025
2	113	J. -W. Hu, Y. -J. Wu, C. -F. Lin, **K. -M. Kang**, and C. -F Huang, "A TMBS Embedded 1.7 kV SiC UMOSFET," 12th Asia-Pacific Workshop on Widegap Semiconductors (APWS 2024), Busan, Korea, 2024.
3	113	**K.-M. Kang***, J.-W. Hu, and C.-F. Huang, “Design Optimization of a 6.5 kV Split-Gate p-Channel 4H-SiC IGBT,” 21st International Conference on Silicon Carbide and Related Materials (ICSCRM 2024), Raleigh, North Carolina, USA, 2024
4	113	J.-W. Hu, Y.-J. Wu, **K.-M. Kang** and C.-F. Huang, W.-T. Weng, Y.-R. Tu, Y.-S. Lin and Y.-Z. Hu, "2.0 kV 4H-SiC TMBS Embedded UMOSFET," 21st International Conference on Silicon Carbide and Related Materials (ICSCRM 2024), Raleigh, North Carolina, USA, 2024
5	113	**K.-M. Kang***, and C.-F. Huang, “Optimal Design of a 6.5kV P-Channel 4H-SiC IGBT,” 7th International Workshop on UV materials and Devices (IWUMD 2024), Taipei,Taiwan, 2024
6	112	J. -W. Hu, T. -Y. Lu, **K. -M. Kang**, C. -F. Huang, B. -R. Chen and T. -L. Wu, "Comparisons of Performance and Reliability in 4H-SiC Tri-gate and Planar MOSFETs," 2023 IEEE Workshop on Wide Bandgap Power Devices and Applications in Asia (WiPDA Asia), Hsinchu, Taiwan, 2023, pp. 1-4

(C) 國內研討會論文

項次	年度	發表著作
1	114	J.-W. Hu, J.-Y. Jang, **K.-M. Kang**, C.-F. Huang, “ Study on Temperature Coefficient of Vth of 4H-SiC MOSFETs,” 30th International Electron Devices and Materials Symposium (IEDMS 2025), Hsinchu, Taiwan, 2025

※ 申請專利：

專利類別	專利名稱	專利國家	專利號碼	專利發明人