

CONTENT

	Page
1. Design, Simulate, and Layout for a Static Random-Access Memory (SRAM) Using a 6T Memory Cell and a Latch-Based Sense Amplifier.....	1
Van-Phuc Nguyen¹, Uyen-Nhi Ton Hoang², Hoang-Viet Le¹, Minh-Anh Nguyen Thuy³, Thanh-Tam Le³, Van-Khoa Pham^{1*}	
¹ <i>Ho Chi Minh City University of Technology and Engineering, Vietnam</i>	
² <i>Synopsys, Vietnam</i>	
³ <i>Faraday Technology, Vietnam</i>	
2. A Comprehensive Survey on Linear Quadratic Regulator Control for Unicycle Robots: Experimental Insights	13
Thi Ai Van Nguyen¹, Dinh Hau Vu^{1*}, Van Thuyen Ngo¹, Tran Minh Nguyet Nguyen¹, Vi Do Tran², Dinh Phu Nguyen¹, Van Dong Hai Nguyen¹, Minh Tai Vo², Binh Hau Nguyen², Minh Tam Nguyen¹	
¹ <i>Ho Chi Minh City University of Technology and Engineering, Vietnam</i>	
² <i>Posts and Telecommunications Institute of Technology (PTIT), Ho Chi Minh City, Vietnam</i>	
3. Controlling an Upper-Limb Rehabilitation Robot by EMG Signals.....	24
Quoc Thanh Trinh¹, Minh Nhut Nguyen², Thanh Nha Nguyen¹, Quoc Thanh Truong³, My Ha Le¹, Duc Thien Tran^{1*}	
¹ <i>Ho Chi Minh City University of Technology and Engineering, Vietnam</i>	
² <i>Samsung HCMC CE Complex, Vietnam</i>	
³ <i>Ho Chi Minh City University of Technology, VNU-HCM, Vietnam</i>	
4. Design and Performance Evaluation of SRAM Processing in Memory Using TSMC 90nm CMOS Technology.....	35
Thanh-Trung Vu, Tuan-Khuong Bui, Duc-Huy Hoang, Van-Khoa Pham[*]	
<i>Ho Chi Minh City University of Technology and Engineering, Vietnam</i>	
5. Implementation of a Neural PI Controller for PMSM Drive Systems: FPGA Based Modeling and Experimental Validation.....	46
Van Minh Nguyen¹, Van Sang Nguyen², Duy Khang Hoang³, Vu Quynh Nguyen^{4*}	
¹ <i>Ho Chi Minh City University of Technology and Engineering, Vietnam</i>	
² <i>Dong Nai University of Technology, Vietnam</i>	
³ <i>Luong The Vinh Gifted Highschool, Vietnam</i>	
⁴ <i>Lac Hong University, Vietnam</i>	
6. Improved Model Predictive Current Control for PMSM Motor With Consensus Algorithm.....	58
Trung Tin Lu, Nguyen Dang Khoa Tran, Minh Duc Pham[*]	
<i>Ho Chi Minh City University of Technology (HCMUT), VNU-HCM, Vietnam</i>	
7. A New Buck-Boost Converter Configuration Reducing Current Stress on the Switch.....	69

Van Ban Nguyen, Thanh Hai Quach, Viet Anh Truong^{*}, Vo Hong Nghi Pham
Ho Chi Minh City University of Technology and Engineering, Vietnam

8. A Study on Quality of 12-Pulse Rectifier Source Feeding Three-Level T-NPC Inverter Under Switch-Open-Circuit Fault SVPWM Control..... **79**
Nguyen Hong Phong Le¹, Dang Khoa Pham¹, Tan Luong Van², Duc Hieu Nguyen³, Van Nho Nguyen^{1*}
¹Ho Chi Minh City University of Technology (HCMUT), VNU-HCM, Vietnam
²Ho Chi Minh City University of Industry and Trade, Vietnam
³Tra Vinh University, Vietnam
9. Enhanced Monthly Load Forecasting With RapidMiner-Based Deep Learning **90**
Gia-Tue Tang, Dinh-Nhon Truong^{*}
Ho Chi Minh City University of Technology and Engineering, Vietnam
10. Four-Level Neutral Point Clamped Inverter Fed by 18-Pulse Diode Rectifier With Low Input and Output Harmonic Distortion..... **101**
Le Nam Pham², Quoc Dung Phan¹, Van Nho Nguyen^{1*}
¹Ho Chi Minh City University of Technology, VNU-HCM, Vietnam
²Eastern International University, Vietnam
11. Analyzing Coincident Factors of Public Electric Vehicles in Ho Chi Minh City: A Monte Carlo Approach..... **110**
Tien Khai Nguyen, Trong Nghia Le^{*}
Ho Chi Minh City University of Technology and Engineering, Vietnam