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| ▼ الاسم المستخدم في نشر البحوث حسب الكوكل سكولر |

Abdullah M. Zyarah

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| ▼ الاتجاهات البحثية |

Neuromorphic architectures for energy constrained platforms and biologically inspired algorithms

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| ▼ الدرجة العلمية |

مدرس

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| ▼ الأبحاث المنشورة  * **Zyarah, Abdullah M.,** Kevin Gomez, and Dhireesha Kudithipudi. "Neuromorphic system for spatial and temporal information processing." *IEEE Transactions on Computers* 69, no. 8 (2020): 1099-1112. * Jot, Sumin, **Abdullah Zyarah**, Santosh Kurinec, Kai Ni, Fatima Tuz Zohora, and Dhireesha Kudithipudi. "FeFET-Based Neuromorphic Architecture with On-Device Feedback Alignment Training." In *2020 21st International Symposium on Quality Electronic Design (ISQED)*, pp. 317-322. IEEE, 2020. * Zohora, Fatima Tuz, **Abdullah M. Zyarah**, Nicholas Soures, and Dhireesha Kudithipudi. "Metaplasticity in Multistate Memristor Synaptic Networks." In Circuits and Systems (ISCAS), 2020 IEEE International Symposium on. IEEE * **Zyarah, A. M.** and Kudithipudi, D. “Neuromemristive Multi-Layer Random Projection Network with On-Device Learning”. In Neural Networks (IJCNN), 2019 International Joint Conference on, IEEE. * Kudithipudi, Dhireesha, Nicholas Soures, **Abdullah Zyarah**, Swatika Ramakrishnan, and Humza Syed. Reservoir Computing and Benchmarking of Neuromorphic Systems for Swap-Constrained Autonomous Processing. Rochester Institute of Technology Rochester United States, 2019. * **Zyarah, Abdullah M.** and Dhireesha Kudithipudi. ”Neuromemrisitive Architecture of HTM with On-Device Learning and Neurogenesis.” ACM Journal on Emerging Technologies in Computing Systems (JETC) 15.3 (2019): 24. * **Zyarah, Abdullah M.,** and Dhireesha Kudithipudi. ”Neuromorphic Architecture for the Hierarchical Temporal Memory.” IEEE Transactions on Emerging Topics in Computational Intelligence 3.1 (2019): 4-14 * **A. Zyarah** and D. Kudithipudi, ”Semi-trained memristive crossbar computing en- gine with in-situ learning accelerator,” ACM Journal on Emerging Technologies in Computing Systems (JETC), vol. 1, no. 1, p. 17, 2018. * **Zyarah, A. M.,** Soures, N., & Kudithipudi, D. (2018, May). On-Device Learning in Memristor Spiking Neural Networks. In Circuits and Systems (ISCAS), 2018 IEEE International Symposium on (pp. 1-5). IEEE. * **Zyarah, Abdullah M**., and Dhireesha Kudithipudi. ”Invited paper: Resource sharing in feed forward neural networks for energy efficiency.” 2017 IEEE 60th International Midwest Symposium on Circuits and Systems (MWSCAS). * **Zyarah, A. M.,** Soures, N., Hays, L., Jacobs-Gedrim, R. B., Agarwal, S., Marinella, M., & Kudithipudi, D. (2017, May). Ziksa: On-chip learning accelerator with memristor crossbars for multilevel neural networks. In Circuits and Systems (ISCAS), 2017 IEEE International Symposium on (pp. 1-4). IEEE. * **Zyarah, A. M.,** & Kudithipudi, D. (2017, May). Extreme learning machine as a generalizable classification engine. In Neural Networks (IJCNN), 2017 International Joint Conference on (pp. 3371-3376). IEEE. * Soures, N., **Zyarah, A.,** Carlson, K. D., Aimone, J. B., & Kudithipudi, D. (2017). How Neural Plasticity Boosts Performance of Spiking Neural Networks (No. SAND2017-5569C). Sandia National Lab.(SNL-NM), Albuquerque, NM (United States). * Soures, N., Hays, L., Bohannon, E., **Zyarah, A. M.,** & Kudithipudi, D. (2017). On-Device STDP and Synaptic Normalization for Neuromemristive Spiking Neural Network. In Circuits and Systems (MWSCAS), 2017 IEEE International Midwest Symposium on. IEEE. * **Zyarah, A. M.,** Ramesh, A., Merkel, C., and Kudithipudi, D. (2016, May). Optimized hardware framework of MLP with random hidden layers for classification applications. In Machine Intelligence and Bio-inspired Computation: Theory and Applications X (Vol. 9850, p. 985007). International Society for Optics and Photonics. * **Zyarah, Abdullah M.,** and Dhireesha Kudithipudi. ”Reconfigurable hardware architecture of the spatial pooler for hierarchical temporal memory.” In System-on-Chip Conference (SOCC), 2015 28th IEEE International, pp. 143-153. IEEE, 2015. |

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| ▼ الكتب والمؤلفات  * N/A |

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| ▼ رسائل الماجستير الذي اشرف عليها  * N/A |

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| ▼ اطاريح الدكتوراه الذي اشرف عليها  * N/A N/A |