Curriculum vitae

Said Mahmoud M. Allam, M.Sc., Ph.D.

Professor

Summary

Said M. Allam was born in Basyun, Egypt in 1977. He received the B.Sc., M.Sc. and Ph.D. degrees in Electrical Power and Machines Engineering from Tanta University, Egypt in 2000, 2004 and 2009, respectively. He is currently a Professor at the Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University. His research interests are in Electrical Machines (Analysis and Control), Electrical Drives, Power Electronics and Renewable Energy.

Personal Data

Name: Said Mahmoud Mahmoud Allam
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Professional Experience

2000-2005: Instructor at the Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, Tanta, Egypt.

2005-2009: Assistant lecturer at the Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, Tanta, Egypt.

2009-2017: Assistant Professor at Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, Tanta, Egypt.

2017-2022: Associate Professor at Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, Tanta, Egypt.

2022-Present: Professor at Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, Tanta, Egypt.

Education

B.Sc: Faculty of Engineering, Tanta University, Tanta, Egypt in 2000 (Very Good with honor degree).

M.Sc: Faculty of Engineering, Tanta University, Tanta, Egypt in 2004.

Ph.D: Faculty of Engineering, Tanta University, Tanta, Egypt in 2009.

Teaching Activities

- Electrical Circuits
- Electromagnetic fields
- Energy Conversion
- Electrical Machines Engineering
- Control of Electrical Machines
- Power Electronics
- Electrical Drives
- Electrical Machines Dynamics
- Renewable Energy Systems

Research Interests

- Performance Analysis of Electrical Machines
- Control of Electrical Machines
- Power Electronics
- Electrical Drives
- Renewable Energy Sources

Conferences

- Thirteenth International Middle East Power Systems Conference, Assiut, Egypt, December 20-23, 2009 (MEPCON'09)

- Fourteenth International Middle East Power Systems Conference, Cairo, Egypt, December 19-21, 2010 (MEPCON'10)

- Fifteen International Middle East Power Systems Conference, Alexandria, Egypt, December 23-25, 2012 (MEPCON'12)

- Sixteen International Middle East Power Systems Conference, Ain Shams University, Egypt, December 23-25, 2014 (MEPCON'14)

- The 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015.

- Fourth International Conference on Electric Power and Energy Conversion Systems (EPECS 2015), American University of Sharjah, UAE, November 24–26, 2015

- Seventeen International Middle East Power Systems Conference, Mansoura University, Egypt, December 15-17, 2015 (MEPCON'15)

- 1st Future University International Conference on New Energy & Environmental Engineering "ICNEEE" April 11-14, 2016, Cairo, Egypt.

- The XXIIth International Conference on Electrical Machines (ICEM'2016), Lausanne-Switzerland, September 4-7, 2016.

- Nineteen International Middle East Power Systems Conference, Mansoura University, Egypt, December 19-21, 2017 (MEPCON'17).

- 2019 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics (PRECEDE), Quanzhou, China, 31 May-2 June 2019.

- 2019 12th International Symposium on Linear Drives for Industry Applications (LDIA), Neuchatel, Switzerland, Switzerland, 1-3 July 2019.

- 2019 22nd International Conference on Electrical Machines and Systems (ICEMS), Harbin, China, 11-14 Aug. 2019.

- 2020 IEEE 9th International Power Electronics and Motion Control Conference (IPEMC2020 ECCE Asia), Nanjing, China, 29 Nov.-2 Dec. 2020

- The 21st Middle East Power Systems Conference, MEPCON'2019, Tanta University, Egypt, December 17-19, 2019.

- The 2nd International Conference on Engineering Science and Technology (ICEST 2021) Luxor, Egypt | February 3-4,2021.

- The 22nd Middle East Power Systems Conference, MEPCON'2021, Assiut University, Egypt, December 14-16, 2021.

- The 25th Middle East Power Systems Conference, MEPCON'2024, Benha University, Egypt, December 17-19, 2024.

Publications

[1] **S. M. Allam**, M. A. El-Khazendar and A. M. Osheiba, "Transient Analysis of a Single-Phase Reluctance Generator," Engineering Research Journal (ERJ), Minoufiya University, Vol. 28, No. 1, January 2005, pp 39-47.

[2] **S. M. Allam**, M. A. El-Khazendar and A. M. Osheiba, "Performance Characteristics of a Self-Excited Single-Phase Reluctance Generator", The 2005 International Conference on Communication, Computer and Power (ICCCP'05), Muscat, February 14-16, 2005, pp. 205-210

[3] **S. M. Allam**, M. A. El-Khazendar and A. M. Osheiba, "Dynamic Analysis of a Self-Excited Single-Phase Reluctance Generator," Electric Power Components and Systems, Vol. 34, No. 7, July 2006, pp. 725-738.

[4] **S. M. Allam**, M. A. El-Khazendar and A. M. Osheiba, "Steady-State Analysis of a Self-Excited Single-Phase Reluctance Generator," IEEE Transaction on Energy Conversion, Vol. 22, No. 3, September 2007, pp. 584-591.

[5] **S. M. Allam**, A. M. Azmy, M. M. Khater and M. A. El-Khazendar, "A Generalized Dynamic Model for Brushless Doubly-Fed Induction Machines," Engineering Research Journal (ERJ), Minoufiya University, Vol. 31, No. 4, October 2008, pp. 345-354.

[6] **S. M. Allam**, A. M. Azmy, and M. A. El-Khazendar, "A General Model for Describing the Performance of Brushless Doubly-Fed Induction Machines," The 2009 International Conference on Communication, Computer and Power (ICCCP'09), Muscat, February 15-18, 2009, pp. 81-86.

[7] **S. M. Allam**, A. M. Azmy, M. A. El-Khazendar, and A.L. Mohamadein, "Dynamic Analysis of a BDFIM with a Simple-proposed Modification in the Cage-Rotor," The 13th Middle East Power Systemss Conference, MEPCON'2009, Assiut University, Egypt, December 20-23, 2009, pp. 356-360.

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[9] M. Nabil, **S. M. Allam** and E. M. Rashad, "Modeling and Design Considerations of a Photovoltaic Energy Source Feeding a Synchronous Reluctance Motor Suitable for Pumping Systems," Ain Shams Engineering Journal, Vol. 3, No. 4, December 2012, pp. 375–382.

[10] **S. M. Allam** and E. M. Rashad, "Minimum Requirements for Successful Self-Excitation of a Series-Connected Wound-Rotor Induction Generator," The 15th Middle East Power Systems Conference, MEPCON'2012, Alexandria University, Egypt, December 23-25, 2012.

[11] M. Nabil, **S. M. Allam** and E. M. Rashad, "Design Considerations and Performance Improvement of a Photovoltaic Pumping System Based on a Synchronous Reluctance Motor," The 15th Middle East Power Systems Conference, MEPCON'2012, Alexandria University, Egypt, December 23-25, 2012.

[12] M. Nabil, **S. M. Allam** and E. M. Rashad, "Performance Improvement of a Photovoltaic Pumping System Using a Synchronous Reluctance Motor," Electric Power Components and Systems, Vol. 41, No. 4, February 2013, pp. 447-464.

[13] **S. M. Allam** "Design and Dynamic Analysis of an Axially-Laminated Self-Starting Synchronous Reluctance Motor," The 16th Middle East Power Systems Conference, MEPCON'2014, Ain Shams University, Egypt, December 23-25, 2014.

[14] Sherif M. Dabour, **S. M. Allam** and Essam M. Rashad, "Space Vector PWM Technique for Three- to Seven-Phase Matrix Converters," The 16th Middle East Power Systems Conference, MEPCON'2014, Ain Shams University, Egypt, December 23-25, 2014.

[15] Sherif M. Dabour, **S. M. Allam** and Essam M. Rashad, "A Simple CB-PWM Technique for Five-Phase Matrix Converters Including Over-Modulation Mode," The 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015.

[16] Sherif M. Dabour, **S. M. Allam** and Essam M. Rashad, "Indirect Space-Vector PWM Technique for Three to Nine Phase Matrix Converters," The 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015.

[17] Mohamed G. Mousa, **S. M. Allam** and Essam M. Rashad, "Maximum Power Tracking of a Grid-Connected Wind-Driven Brushless Doubly-Fed Reluctance Generator using Scalar Control," The 8th IEEE GCC Conference and Exhibition, Muscat, Oman, 1-4 February, 2015.

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[19] Mohamed G. Mousa, **S. M. Allam** and Essam M. Rashad, "Vector Control Strategy for Maximum Wind-Power Extraction of a Grid-Connected Wind-Driven Brushless Doubly-Fed Reluctance Generator," The 4th International Conference on Electric Power and Energy Conversion Systems (EPECS'15), American University of Sharjah, UAE, November 24–26, 2015.

[20] M. F. ELmorshedy, **S. M. Allam**, A. I. A. Shobair, and Essam M. Rashad, "Voltage and Frequency Control of a Stand-alone Wind-Energy Conversion System Based on PMSG," The 4th International Conference on Electric Power and Energy Conversion Systems (EPECS'15), American University of Sharjah, UAE, November 24–26, 2015.

[21] M. Mohiedden, **S. M. Allam** and T. M. Abdel-Moneim, "Dynamic Analysis of an Isolated Self-Excited Synchronous Reluctance Generator Driven by a Variable-Speed Wind Turbine," The 17th Middle East Power Systems Conference, MEPCON'2015, Mansoura University, Egypt, December 15-17, 2015.

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[25] **S. M. Allam**, Mohamed G. Mousa and Essam M. Rashad, "A Proposed Grid-Synchronization Strategy of a Wind-Driven Brushless Doubly-Fed Reluctance Generator," The 17th Middle East Power Systems Conference, MEPCON'2015, Mansoura University, Egypt, December 15-17, 2015.

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[30] M. F. ELmorshedy, **S. M. Allam** and Essam M. Rashad, "Performance Analysis and Control of a Stand-alone Wind-Driven PMSG Including Unbalanced Conditions," The XXIIth International Conference on Electrical Machines (ICEM'2016), Lausanne-Switzerland, September 4-7, 2016.

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[34] M. F. ELmorshedy, **S. M. Allam** and Essam M. Rashad, "Load Voltage Control and Maximum Power Extraction of a Stand-Alone Wind-Driven PMSG Including Unbalanced Operating Conditions," The 18th Middle East Power Systems Conference, MEPCON'2016, Helwan University, Egypt, December 27-29, 2016.

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[37] Mohamed G. Mousa, **S. M. Allam**, and Essam M. Rashad, " A comparative study of vector-control strategies for maximum wind-power extraction of a grid-connected wind-driven brushless doubly-fed reluctance generator," Australian Journal of Electrical and Electronics Engineering, 2017, pp. 1-11.

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[40] Mahmoud F. Elmorshedy, Wei Xu, Yi Liu, **Said M. Allam** and Minghai Dong, "Speed Control of Linear Induction Motor based on Finite-Set Model Predictive Direct Flux Control," 2019 IEEE International Symposium on Predictive Control of Electrical Drives and Power Electronics (PRECEDE), Quanzhou, China, 31 May-2 June 2019.

[41] Wei Xu, Mahmoud F. Elmorshedy, Yi Liu, Md. Rabiul Islam and **Said M. Allam**, "Finite-Set Model Predictive Control Based Thrust Maximization of Linear Induction Motors Used in Linear Metros," IEEE Transactions on Vehicular Technology, vol. 68, no. 6, pp. 5443-5458, Jun. 2019.

[42] Mahmoud F. Elmorshedy, Wei Xu, Yi Liu, Mosaad M. Ali, **Said M. Allam** and Minghai Dong, "Sensorless Direct Thrust Control of a Linear Induction Motor Based on MRAS," 2019 12th International Symposium on Linear Drives for Industry Applications (LDIA), Neuchatel, Switzerland, Switzerland, 1-3 July 2019.

[43] **Said M. Allam**, Design and performance analysis of an axially-laminated self-starting synchronous reluctance motor," Australian Journal of Electrical and Electronics Engineering, 2019, pp. 1-8.

[44] Mosaad M. Ali, Wei Xu, Mahmoud F. Elmorshedy, Yi Liu, **Said M. Allam** and Minghai Dong, "Sliding Mode Speed Regulation of Linear Induction Motors Based on Direct Thrust Control with Space-Vector Modulation Strategy," 2019 22nd International Conference on Electrical Machines and Systems (ICEMS), Harbin, China, 11-14 Aug. 2019.

[45] Mohamed G. Hussien, Wei Xu, Yi Liu and **Said M. Allam**, "Rotor Speed Observer with Extended Current Estimator for Sensorless Control of Induction Motor Drive Systems," Energies **2019**, 12(19), 3613.

[46] **Said M. Allam**, "Performance Analysis and Enhancement of a PV Fed Sensorless BLDC-Motor for an Efficient Water-Pumping System," The 21st Middle East Power Systems Conference, MEPCON'2019, Tanta University, Egypt, December 17-19, 2019.

[47] Alaa Sh. Elghnam, **Said M. Allam** and Ahmed M. Azmy, "A Comprehensive Analysis and Control of DVR Operating Modes for Grid-Voltage Compensation," The 21st Middle East Power Systems Conference, MEPCON'2019, Tanta University, Egypt, December 17-19, 2019.

[48] Sara M. Ismaeel, **Said M. Allam** and Essam M. Rashad, "Current Vector Control Techniques of Five-Phase Synchronous Reluctance Motor Drive Systems," The 21st Middle East Power Systems Conference, MEPCON'2019, Tanta University, Egypt, December 17-19, 2019.

[49] M. F. ELmorshedy, **Said M. Allam** and Essam M. Rashad, "Performance Enhancement of Wind-Driven Standalone PMSG Integrated with Battery Storage System Verification," Australian Journal of Electrical and Electronics Engineering, 2020, pp. 1-11.

[50] Mahmoud F. Elmorshedy, Wei Xu, Mosaad M. Ali, Yi Liu and **Said M. Allam**, "High Performance Speed Sensorless Finite-Set Predictive Thrust Control of a Linear Induction Motor based on MRAS and Fuzzy Logic Controller," 2020 IEEE 9th International Power Electronics and Motion Control Conference (IPEMC2020-ECCE Asia), Nanjing, China, 29 Nov.-2 Dec. 2020, pp. 3039-3044.

[51] Wei Xu, Mohamed G. Hussien, Yi Liu, Md. Rabiul Islam and **Said M. Allam**, "Sensorless Voltage Control Schemes for Brushless Doubly-Fed Induction Generators in Stand-Alone and Grid-Connected Applications," IEEE Transactions on Energy Conversion, vol. 35, no. 4, pp. 1781-1795, Dec. 2020.

[52] Mahmoud F. Elmorshedy, Wei Xu, **Said M. Allam**, Jose Rodriguez and Cristian Garcia, "MTPA-Based Finite-Set Model Predictive Control without Weighting Factors for Linear Induction Machine," IEEE Transactions on Industrial Electronics, vol. 68, no. 3, pp. 2034-2047, Mar. 2021.

[53] Wei Xu, Mohamed G. Hussien, Yi Liu and **Said M. Allam**, "Sensorless Control of Ship Shaft Stand-Alone BDFIGs Based on Reactive-Power MRAS Observer," IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 9, no. 2, pp. 1518-1531, Apr. 2021.

[54] Wei Xu, Mosaad M. Ali, Mahmoud F. Elmorshedy, **Said M. Allam** and Chaoxu Mu, "One Improved Sliding Mode DTC for Linear Induction Machines based on Linear Metro," IEEE Transactions on Power Electronics, vol. 36, no. 4, pp. 4560-4571, Apr. 2021.

[55] Muhammed S. Mubarak, Ahmed E. ELGebaly and **Said M. Allam**, "Practical Design and Performance Investigation of a 3.7 MW Stand-alone Photovoltaic Power Plant Feeding Industrial Area in Egypt," The 2nd International Conference on Engineering Science and Technology (ICEST 2021) Luxor, Egypt | February 3-4,2021.

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[58] Mahmoud F. Elmorshedy, Mosaad M. Ali and **Said M. Allam** , "A Proposed High-Performance Wind-Driven Doubly-Fed Induction Generator Based on Super-Twisting Sliding Mode Control for Rural Areas Applications," The 22nd Middle East Power Systems Conference, MEPCON'2021, Assiut University, Egypt, December 14-16, 2021.

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[61] Mahmoud F. Elmorshedy, Dhafer Almakhles and **Said M. Allam** , "Improved Performance of Linear Induction Motors Based on Optimal Duty Cycle Finite-Set Model Predictive Thrust Control," Heliyon. Volume 10, Issue 13, July 2024. e34169.

[62] Nader El Gohary Ahmed, Mohamed A. Almozayen and **Said M. Allam**, "Performance Analysis of Vector-Controlled Interior Permanent Magnet Synchronous Motors Based on an Accurate Dynamic Model," The 25th Middle East Power Systems Conference, MEPCON'2024, Benha University, Egypt, December 17-19, 2024.