

# CURRICULUM VITAE



## (1) Personal data:

Name: Hossam Abd Elwahed Abd Elghany Saleh  
Gender: Male  
Date of birth: Dec 23, 1980, El Shuka, Damanhur, Bahira, Egypt  
Marital status: Married  
Nationality: Egyptian  
Permanent address: El Shuka, Damanhur–Bahira, Egypt  
Mobile: +2010-97100043  
E-mail: [hossam.saleh@f-eng.tanta.edu.eg](mailto:hossam.saleh@f-eng.tanta.edu.eg),  
[hossam\\_saleh2000@yahoo.com](mailto:hossam_saleh2000@yahoo.com)

## (2) Education:

2004 B.Sc., Department of Electrical Power and Machine Engineering, Faculty of Engineering, Tanta University, **Egypt** (excellent with honor degree)  
2008 M.Sc., Department of Electrical Power and Machine Engineering, Tanta University, **Egypt**  
2015 Ph.D., Department of Electrical Power and Machine Engineering, Tanta University, **Egypt**

## (3) Profession:

2006~2008 Instructor, Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, **Egypt**  
2008~2015 Assistant lecturer, Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, **Egypt**  
2015~ 2021 Lecturer, Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, **Egypt**  
2021~ present Associate professor, Department of Electrical Power and Machines Engineering, Faculty of Engineering, Tanta University, **Egypt**

## (4) Teaching activities:

- Power system protection (fourth year-electrical)
- Electrical Installation engineering (fourth year-power)
- Electrical Machine Design (third year-power)
- Power system analysis (third year- electrical)
- Electrical circuits (first year-electrical)
- Power systems (second year-electrical power and machines)
- Economic operation of power systems (third year-power)
- B.Sc. projects: - A faulted side identification scheme-based integrated distance protection for series-compensated transmission lines

- Optimal PMU Allocation for High-Sensitivity Wide-Area Backup Protection Scheme of Transmission Lines
- Online economic dispatch using intelligent techniques
- Analysis of photovoltaic performance
- Economic operation of renewable energy sources

### **(5) Fields of research**

- Development and Evaluation of Differential Protection for Phase-Shifting Transformers
- Protection Scheme for Low Voltage DC microgrids
- Fault Location of Simultaneous Faults based on Travelling Waves Technique
- A faulted side identification scheme-based integrated distance protection for series-compensated transmission lines
- Optimal PMU Allocation for High-Sensitivity Wide-Area Backup Protection Scheme of Transmission Lines
- Islanding Scenarios for High Reliable Operation of Distribution Network
- Electrical Appliances Identification Based on Non-Intrusive Load Signatures
- Optimal Coordination of Directional Overcurrent Relays for sub transmission systems with Distributed Generation
- Optimal Penetration of Distributed Generation without Modifying Protection Coordination in Distributed Networks
- Optimal Placement and Sizing of Distributed Generating Units in Ring Feeders
- Optimization techniques in power systems
- Economic aspects of distributed generating units such as fuel cells and micro-turbines when used to supply residential loads

### **(6) Other activities**

- Participating in the construction of the labs of electrical power and machines in the Faculty of Engineering, Tanta University (Tanta cities)
- Consultant of many projects inside and outside the Tanta University
- Attending 14 training workshops through the national development project "FLDP"
- A member in the management team of the QAAP project in Faculty of Engineering, Tanta University
- A member in the committee of developing the post-graduate bylaw
- A member in the committee of developing the under-graduate bylaw
- A member in the committee of developing the Renewable energy engineering program bylaw

### **(7) Completed-Thesis Supervision**

- Supervisor of 10 approved M.Sc. theses
- Supervisor of 3 approved Ph.D. theses

### **(8) Conferences**

- Attending more than 4 international scientific conferences in Egypt
- Attending one international scientific conference in Italy

## **(9) Prizes and Award**

- Prizes for international publishing in 2014, 2015, 2018, 2019, 2020, and 2021.

## **(10) Published Papers**

### **Journal Paper**

- [1] **Hossam A. Abd el-Ghany**, A.A. Abou El Ela, G.E. Ali, "Maximal Optimal Preventive Control Actions in Unit Commitment using Partial Swarm Optimization," AEJ - Alexandria Engineering Journal, Vol. 47, No. 6, pp. 511-522, Nov. 2008.
- [2] **Hossam A. Abd el-Ghany**, A.A. Abou El Ela, G.E. Ali, "A Profit-Based Unit Commitment using Different Hybrid Particle Swarm Optimization for Competitive Market," International Energy Journal, Vol. 9, No. 4, pp. 281-290, Dec. 2008.
- [3] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "Defining the Practical Constraints of Inserting DG Units in Distribution Systems Regarding Protection Schemes," International Transactions on Electrical Energy Systems, Vol. 25, No. 12, pp. 3618-3629, Dec. 2015, DOI:10.1002/etep.2056
- [4] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Nagy I. Elkalashy, Essam M. Rashad, "Optimizing DG Penetration in Distribution Networks Concerning Protection Schemes and Technical Impact," Electric Power Systems Research, Vol. 128, pp. 113-122, Jul. 2015. DOI:10.1016/j.epsr.2015.07.005
- [5] Abd-El Fattah Hamad, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy: Switching strategy for DG optimal allocation during repairing fault periods on loop distribution networks," International Transactions on Electrical Energy Systems, Vol. 27, No. 12, Oct. 2017, e2454., DOI:10.1002/etep.2454 Ismail A Soliman,
- [6] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, "A Robust Differential Protection Technique for Single Core Delta-Hexagonal Phase-Shifting Transformers," International Journal of Electrical Power & Energy Systems, Vol. 109, pp. 207-216, Feb. 2019. DOI:10.1016/j.ijepes.2019.02.015.
- [7] **Hossam A. Abd el-Ghany**, Eman Saad Ahmed, Mahmoud A. Elsadd: A faulted side identification scheme-based integrated distance protection for series-compensated transmission lines. International Journal of Electrical Power & Energy Systems, Vol. 113, pp. 664-673, jun. 2019. DOI:10.1016/j.ijepes.2019.06.021
- [8] Ismail A. Soliman, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "A Robust Differential Protection Technique for Single Core Delta-hexagonal Phase-shifting Transformers," Electrical Power and Energy Systems, Vol. 109, pp. 207–216, 2019.
- [9] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, and Ahmed Magdy Abeid, "A General Travelling-Wave Based Scheme for Locating Simultaneous Faults in Transmission", IEEE Transactions on Power Delivery, DOI 10.1109/TPWRD.2019.2931178, IEEE.
- [10] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, Mohamed Attia Saad, "Optimal DG Deployment Based on Technical and Economic Considerations with Daily Load Variation," International Journal of Engineering Research in Africa, Vol. 45, pp. 115-131, Nov. 2019.
- [11] Walaa S. Sakr, **Hossam A. Abd el-Ghany**, Ragab A. EL-Sehiemy, Ahmed M. Azmy, "Techno-economic assessment of consumers' participation in the demand response program for optimal day-ahead scheduling of virtual power plants," Alexandria Engineering Journal, Vol. 59, No. 1, pp. 399–415, Feb. 2020. <https://doi.org/10.1016/j.aej.2020.01.009>.
- [12] Eatmad W. Nahas, Diaa-Eldin A. Mansour, **Hossam A. Abd el-Ghany**, M. M. Eissa, "Developing A Smart Power-Voltage Relay (SPV-Relay) with no Communication System for DC Microgrids," Electric Power Systems Research, Vol. 187, Oct. 2020, 106432. <https://doi.org/10.1016/j.epsr.2020.106432>

- [13] **Hossam A. Abd el-Ghany**, "Optimal PMU Allocation for High-Sensitivity Wide-Area Backup Protection Scheme of Transmission Lines," *Electric Power Systems Research*, Vol. 187, 2020, 106485. <https://doi.org/10.1016/j.epsr.2020.106485>.
- [14] **Hossam A. Abd el-Ghany**, Ismail A. Soliman, Ahmed M. Azmy, "A reliable differential protection algorithm for delta hexagonal phase-shifting transformers," *International Journal of Electrical Power & Energy Systems*, Vol. 127, 2021, 106671, <https://doi.org/10.1016/j.ijepes.2020.106671>.
- [15] Eatmad W. Nahas, **Hossam A. Abd el-Ghany**, Diaa-Eldin A. Mansour, M.M. Eissa, "Extensive analysis of fault response and extracting fault features for DC microgrids," *Alexandria Engineering Journal*, Vol. 60, No. 2, pp. 2405-2420, 2021. <https://doi.org/10.1016/j.aej.2020.12.026>.
- [16] Ahmed M. Elkholy, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "General Framework for Intentional Islanding to Enhance Distribution System Performance," *Electric Power Components and Systems*, Vol. 48, No. 15, pp. 1-37, 2021. DOI: 10.1080/15325008.2020.1856227
- [17] A. E. ELGebaly, I. B. M. Taha, A. M. Azmy and **Hossam A. Abd el-Ghany**, "Optimal design and control of SSSCs for TLs considering technical and economic indices using GA and SAMPE-JAYA algorithms," in *IEEE Access*, Vol. 9, 2021. doi: 10.1109/ACCESS.2021.3063807.
- [18] **Hossam A. Abd el-Ghany**, Abd-El Fattah S. Hammad, Ahmed M. Azmy, "Evaluating the effect of considering repairing-fault periods on calculating technical losses in medium-voltage feeders of ring distribution networks," *Electric Power Systems Research*, Vol. 196, 2021, 107192.
- [19] **Hossam A. Abd el-Ghany**, Ahmed E. ELGebaly, Ibrahim B.M. Taha, "A new monitoring technique for fault detection and classification in PV systems based on rate of change of voltage-current trajectory," *International Journal of Electrical Power & Energy Systems*, Vol. 133, 2021, 107248.
- [20] Ibrahim B.M. Taha, Ahmed E. ELGebaly, Eman S. Ahmed, **Hossam A. Abd el-Ghany**, "Generalized voltage estimation of TCSC-compensated transmission lines for adaptive distance protection," *International Journal of Electrical Power & Energy Systems*, Vol. 130, 2021, 107018.
- [21] **Hossam A. Abd el-Ghany**, E. S. Ahmed and A. E. ELGebaly, "A Reliable Loss of Excitation Protection Technique Based on EPFA for Synchronous Generators," in *IEEE Transactions on Power Delivery*, vol. 37, no. 3, pp. 1445-1455, June 2022, doi: 10.1109/TPWRD.2021.3087538.
- [22] Walaa S. Sakr, Ragab A. EL-Sehiemy, Ahmed M. Azmy, **Hossam A. Abd el-Ghany**, "Identifying optimal border of virtual power plants considering uncertainties and demand response," *Alexandria Engineering Journal*, Vol. 61, no. 12, pp. 9673-9713, 2022. <https://doi.org/10.1016/j.aej.2022.02.070>.
- [23] F. M. Aboshady and **Hossam A. Abd el-Ghany**, "Compensating the combined impact of hexagonal phase-shifting transformer and fault resistance on the distance protection," *International Journal of Electrical Power & Energy Systems*, Vol. 141, 2022, 108188, <https://doi.org/10.1016/j.ijepes.2022.108188>.
- [24] **Hossam A. Abd el-Ghany**, Ismail A. Soliman and Ahmed E. ELGebaly, "An advanced wide-area fault detection and location technique for transmission lines considering optimal phasor measurement units allocation," *Alexandria Engineering Journal*, Vol. 61, no. 5, pp. 3971-3984, 2022. <https://doi.org/10.1016/j.aej.2021.09.022>.

## **Conference Proceedings**

- [25] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Nagy I. Elkalashy, Essam M. Rashad, "Optimal Siting and Sizing of DG Units Based on Protection Schemes and Technical Aspects," The 17th International Middle East Power Systems Conference MEPCON'15, Mansoura University, Egypt, December 15-17, 2015, Mansoura University, Mansoura, Egypt, December 15-17, 2015.
- [26] Ahmed Magdy Abeid, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "An Advanced Traveling-Wave Fault-Location Algorithm for Simultaneous Faults," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 747-752.
- [27] Ahmed M. Elkholy, **Hossam A. Abd El-Ghany**, Ahmed M. Azmy, "A Proposed Load Shedding Mechanism for Enhancing Intentional-Islanding Dynamics of Distribution Systems," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 870-875.
- [28] Mohamed Attia Saad, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "Optimal DG Deployment to Improve Voltage Stability Margin Considering Load Variation," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 765-771.
- [29] Abeer. A. Kholeif, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "Impact of supply voltage variation on V-I trajectory identification method," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 839-844.
- [30] Eatmad W. Nahas, Diaa-Eldin A. Mansour, **Hossam A. Abd el-Ghany**, M.M. Eissa, "Accurate Fault Analysis and Proposed Protection Scheme for Battery Energy Storage System Integrated with DC Microgrids," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 911-917.
- [31] Ahmed M. Elkholy, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "An Advanced Load Shedding Algorithm to Enhance Intentional-Islanding Dynamics," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 797-802.
- [32] **Hossam A. Abd el-Ghany**, Mahmoud A. ElSadd, Eman S. Ahmed, "A New Method of Unintentional Islanding Detection for Distribution Network with Synchronous DG," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 1046-1052.
- [33] Ismail A Soliman, **Hossam A. Abd el-Ghany**, Ahmed M Azmy, "A Proposed Algorithm for Current Differential Protection of Delta Hexagonal Phase Shifting Transformer," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 785-790.
- [34] **Hossam A. Abd el-Ghany**, Abd El-Fattah Hamad, Ahmed Mohamed Azmy, "Optimal DG allocation in LV distribution networks considering repairing fault periods," *25th International Conference on Electricity Distribution (CIRED 2019)*, Madrid, Spain; paper No. 627, 3-6 June 2019.
- [35] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, Mohamed Attia Saad, "Technical Performance Enhancement of Distribution System via Optimal DG Deployment," *25th International Conference on Electricity Distribution (CIRED 2019)*, Madrid, Spain; paper No. 104, 3-6 June 2019.
- [36] Ismail A Soliman, **Hossam A. Abd el-Ghany**, Ahmed M Azmy, "A Comprehensive Differential Protection Scheme for Delta Hexagonal Phase Angle Regulating

Transformers,” 2019 AEIT International Annual Conference, Florence, Italia, 18-20 Sep. 2019.

- [37] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Ahmed Magdy Abeid, “A Robust Travelling-Wave Simultaneous Faults Location Considering Parameters Variations,” 2019 AEIT International Annual Conference, Florence, Italia, 18-20 Sep. 2019.
- [38] W. S. Sakr, **Hossam A. Abd El-Ghany**, Ragab A. El-Sehiemy and Ahmed M. Azmy, “A day-ahead optimal RERs scheduling approach for virtual power plants considering different loading conditions,” 2019 21st International Middle East Power Systems Conference (MEPCON), Tanta University, Egypt, 2019.
- [39] Eman S. Ahmad, **Hossam A. Abd El-Ghany** and Almoataz Y. Abdelaziz, “An Integrated Power Differential Scheme for Tertiary Power Transformer Protection,” 2019 21st International Middle East Power Systems Conference (MEPCON), Tanta University, Egypt, 2019.
- [40] **Hossam A. Abd el-Ghany**, A. M. Azmy and A. A. Kholeif, "Adaptive Load Identification Considering Effects of Harmonics and Voltage Variations," 2021 22nd International Middle East Power Systems Conference (MEPCON), 2021, pp. 174-181, [doi: 10.1109/MEPCON50283.2021.9686223](https://doi.org/10.1109/MEPCON50283.2021.9686223).
- [41] A. -E. F. S. Hammad, A. M. Azmy and **Hossam A. Abd el-Ghany**, "Proposed Simplified Formula for Calculating Technical Losses in Radial Distribution Feeders Considering Repairing-Fault Periods," 2021 22nd International Middle East Power Systems Conference (MEPCON), 2021, pp. 659-664, [doi: 10.1109/MEPCON50283.2021.9686278](https://doi.org/10.1109/MEPCON50283.2021.9686278).

### **Book Chapter**

- [42] **Hossam A. Abd el-Ghany**, E. M. Rashad, A. M. Azmy, and N. I. Elkalashy, “Identifying Hosting Capacity of Renewable DG Units in Smart Grids Considering Protection Systems,” In: Das, S.K., Islam, M.R., Xu, W. (eds) *Advances in Control Techniques for Smart Grid Applications*. Springer, Singapore, 2022. [https://doi.org/10.1007/978-981-16-9856-9\\_6](https://doi.org/10.1007/978-981-16-9856-9_6).



## السيرة الذاتية (١) بيانات شخصية

الاسم: حسام عبد الواحد عبد الغنى صالح  
تاريخ الميلاد: ٢٣ ديسمبر ١٩٨٠  
الحالة الاجتماعية: متزوج  
الجنسية: مصري  
العنوان: الشوكة – دمنهور – محافظة البحيرة  
محمول: ٠٠٢٠١٠٩٧١٠٠٠٤٣  
بريد الكتروني: [hossam.saleh@f-eng.tanta.edu.eg](mailto:hossam.saleh@f-eng.tanta.edu.eg)  
[hossam\\_saleh2000@yahoo.com](mailto:hossam_saleh2000@yahoo.com)

## (٢) التعليم

٢٠٠٤ بكالوريوس الهندسة – قسم هندسة القوي والآلات الكهربائية- كلية الهندسة – جامعة طنطا (امتياز مع مرتبة الشرف)  
٢٠٠٨ ماجستير الهندسة – قسم هندسة القوي والآلات الكهربائية- كلية الهندسة - جامعة طنطا  
٢٠١٥ دكتوراه في الهندسة – قسم هندسة القوي والآلات الكهربائية - كلية الهندسة - جامعة طنطا

## (٣) التدرج الوظيفي

٢٠٠٦~٢٠٠٨ معيد بقسم هندسة القوي والآلات الكهربائية- كلية الهندسة - جامعة طنطا-مصر  
٢٠٠٨~٢٠١٥ مدرس مساعد بقسم هندسة القوي والآلات الكهربائية- كلية الهندسة – جامعة طنطا - مصر  
٢٠١٥~٢٠٢١ مدرس بقسم هندسة القوي والآلات الكهربائية- كلية الهندسة – جامعة طنطا – مصر  
٢٠٢١~الآن أستاذ مساعد بقسم هندسة القوي والآلات الكهربائية- كلية الهندسة – جامعة طنطا – مصر

## (٤) النشاط التدريسي

- وقاية نظم القوى الكهربائية (الفرقة الرابعة- قوى كهربية)
- تحليل نظم القوى الكهربائية (الفرقة الثالثة- قوى كهربية)
- الدوائر الكهربائية (الفرقة الأولى- كهرباء)
- هندسة القوي (الفرقة الثانية – قوى كهربية)
- توليد واقتصاديات الطاقة (الفرقة الثالثة- قوى كهربية)
- هندسة التركيبات الكهربائية (الفرقة الرابعة- قوى كهربية)
- مشروع التخرج لطلبة البكالوريوس في الموضوعات التالية:  
تطوير المرحلات المسافية للخطوط الهوائية المعوضة  
الاختيار الأمثل لوحدة PMU لحماية الشبكات الذكية  
التوزيع الاقتصادي للقدرات الكهربائية في الزمن الفعلي باستخدام الطرق الذكية  
التشغيل الاقتصادي لمصادر الطاقة الجديدة

## (٥) المجالات البحثية

- تمثيل وتطوير المرحلات المسافية للخطوط الهوائية المعوضة
- الاختيار الأمثل لوحدة PMU لحماية الشبكات الذكية
- تطوير وتقييم الحماية التفاضلية لمحولات ترحيل الطور
- نمذجة طريقة لحماية الشبكات المتناهية الصغر ذو التيار المستمر
- تحديد مكان الخطأ للأخطاء المترامنة اعتماداً على تقنية الموجات العابرة
- التعرف على الأجهزة الكهربائية اعتماداً على بصمات الحمل غير التداخلية
- سيناريوهات التجزير للتشغيل عالي الاعتمادية لشبكات التوزيع
- الأداء الأمثل لمنظومات القوي
- التمثيل الديناميكي والتحكم في وحدات الطاقة الجديدة والمتجددة مثل تربينات الرياح مع وحدات الديزل
- العوامل الاقتصادية لوحدة التوليد الموزعة مثل التربينات متناهية الصغر عند عملها لتغذية الأحمال المنزلية

## (٦) أنشطة اخرى

- مدير معمل هندسة القوي الكهربائية بقسم هندسة القوي الكهربائية بالكلية بطنطا
- المشاركة في إنشاء معامل القوي والآلات الكهربائية بقسم هندسة القوي الكهربائية بالكلية بطنطا
- الاشتراك في الإشراف على العديد من العمليات الاستشارية داخل وخارج الجامعة
- حضور ١٤ دورة تدريبية من خلال المشروع القومي لتنمية قدرات أعضاء هيئة التدريس "FLDP"
- عضو فريق إعداد لائحة الدراسات العليا بالقسم
- عضو فريق إعداد لائحة برنامج الطاقة المتجددة بالقسم
- عضو فريق إعداد مؤتمر الشرق الأوسط الحادى والعشرون MEPCON19

## (٧) الإشراف على الرسائل

- مشارك في الإشراف على 6 رسائل ماجستير تم مناقشتها بالفعل
- مشرف حالياً على 4 رسالة ماجستير
- مشرف حالياً على 3 رسالة دكتوراه

## (٨) المؤتمرات العلمية

- حضور أكثر من 4 مؤتمر عالمية في مصر
- حضور مؤتمر عالمي في إيطاليا

## (٩) الجوائز

- حاصل على جائزة الجامعة للنشر الدولي أعوام ٢٠١٤, ٢٠١٥ و ٢٠١٨ و ٢٠١٩ و ٢٠٢٠ و ٢٠٢١, ٢٠٢٢



- [1] **Hossam A. Abd el-Ghany**, A.A. Abou El Ela, G.E. Ali, "Maximal Optimal Preventive Control Actions in Unit Commitment using Partial Swarm Optimization," AEJ - Alexandria Engineering Journal, Vol. 47, No. 6, pp. 511-522, Nov. 2008.
- [2] **Hossam A. Abd el-Ghany**, A.A. Abou El Ela, G.E. Ali, "A Profit-Based Unit Commitment using Different Hybrid Particle Swarm Optimization for Competitive Market," International Energy Journal, Vol. 9, No. 4, pp. 281-290, Dec. 2008.
- [3] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "Defining the Practical Constraints of Inserting DG Units in Distribution Systems Regarding Protection Schemes," International Transactions on Electrical Energy Systems, Vol. 25, No. 12, pp. 3618-3629, Dec. 2015, DOI:10.1002/etep.2056
- [4] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Nagy I. Elkalashy, Essam M. Rashad, "Optimizing DG Penetration in Distribution Networks Concerning Protection Schemes and Technical Impact," Electric Power Systems Research, Vol. 128, pp. 113-122, Jul. 2015. DOI:10.1016/j.epsr.2015.07.005
- [5] Abd-El Fattah Hamad, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy: Switching strategy for DG optimal allocation during repairing fault periods on loop distribution networks," International Transactions on Electrical Energy Systems, Vol. 27, No. 12, Oct. 2017, e2454., DOI:10.1002/etep.2454 Ismail A Soliman,
- [6] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, "A Robust Differential Protection Technique for Single Core Delta-Hexagonal Phase-Shifting Transformers," International Journal of Electrical Power & Energy Systems, Vol. 109, pp. 207-216, Feb. 2019. DOI:10.1016/j.ijepes.2019.02.015.
- [7] **Hossam A. Abd el-Ghany**, Eman Saad Ahmed, Mahmoud A. Elsadd: A faulted side identification scheme-based integrated distance protection for series-compensated transmission lines. International Journal of Electrical Power & Energy Systems, Vol. 113, pp. 664-673, Jun. 2019. DOI:10.1016/j.ijepes.2019.06.021
- [8] Ismail A. Soliman, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "A Robust Differential Protection Technique for Single Core Delta-hexagonal Phase-shifting Transformers," Electrical Power and Energy Systems, Vol. 109, pp. 207-216, 2019.
- [9] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, and Ahmed Magdy Abeid, "A General Travelling-Wave Based Scheme for Locating Simultaneous Faults in Transmission", IEEE Transactions on Power Delivery, DOI 10.1109/TPWRD.2019.2931178, IEEE.
- [10] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, Mohamed Attia Saad, "Optimal DG Deployment Based on Technical and Economic Considerations with Daily Load Variation," International Journal of Engineering Research in Africa, Vol. 45, pp. 115-131, Nov. 2019.
- [11] Walaa S. Sakr, **Hossam A. Abd el-Ghany**, Ragab A. EL-Sehiemy, Ahmed M. Azmy, "Techno-economic assessment of consumers' participation in the demand response program for optimal day-ahead scheduling of virtual power plants," Alexandria Engineering Journal, Vol. 59, No. 1, pp. 399-415, Feb. 2020. <https://doi.org/10.1016/j.aej.2020.01.009>.
- [12] Eatmad W. Nahas, Diaa-Eldin A. Mansour, **Hossam A. Abd el-Ghany**, M. M. Eissa, "Developing A Smart Power-Voltage Relay (SPV-Relay) with no Communication System for DC Microgrids," Electric Power Systems Research, Vol. 187, Oct. 2020, 106432. <https://doi.org/10.1016/j.epsr.2020.106432>
- [13] **Hossam A. Abd el-Ghany**, "Optimal PMU Allocation for High-Sensitivity Wide-Area Backup Protection Scheme of Transmission Lines," Electric Power Systems Research, Vol. 187, 2020, 106485. <https://doi.org/10.1016/j.epsr.2020.106485>.

- [14] **Hossam A. Abd el-Ghany**, Ismail A. Soliman, Ahmed M. Azmy, "A reliable differential protection algorithm for delta hexagonal phase-shifting transformers," *International Journal of Electrical Power & Energy Systems*, Vol. 127, 2021, 106671, <https://doi.org/10.1016/j.ijepes.2020.106671>.
- [15] Eatmad W. Nahas, **Hossam A. Abd el-Ghany**, Diao-Eldin A. Mansour, M.M. Eissa, "Extensive analysis of fault response and extracting fault features for DC microgrids," *Alexandria Engineering Journal*, Vol. 60, No. 2, pp. 2405-2420, 2021. <https://doi.org/10.1016/j.aej.2020.12.026>.
- [16] Ahmed M. Elkholy, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "General Framework for Intentional Islanding to Enhance Distribution System Performance," *Electric Power Components and Systems*, Vol. 48, No. 15, pp. 1-37, 2021. DOI: 10.1080/15325008.2020.1856227
- [17] A. E. ELGebaly, I. B. M. Taha, A. M. Azmy and **Hossam A. Abd el-Ghany**, "Optimal design and control of SSSCs for TLs considering technical and economic indices using GA and SAMPE-JAYA algorithms," in *IEEE Access*, Vol. 9, 2021. doi: 10.1109/ACCESS.2021.3063807.
- [18] **Hossam A. Abd el-Ghany**, Abd-El Fattah S. Hammad, Ahmed M. Azmy, "Evaluating the effect of considering repairing-fault periods on calculating technical losses in medium-voltage feeders of ring distribution networks," *Electric Power Systems Research*, Vol. 196, 2021, 107192.
- [19] **Hossam A. Abd el-Ghany**, Ahmed E. ELGebaly, Ibrahim B.M. Taha, "A new monitoring technique for fault detection and classification in PV systems based on rate of change of voltage-current trajectory," *International Journal of Electrical Power & Energy Systems*, Vol. 133, 2021, 107248.
- [20] Ibrahim B.M. Taha, Ahmed E. ELGebaly, Eman S. Ahmed, **Hossam A. Abd el-Ghany**, "Generalized voltage estimation of TCSC-compensated transmission lines for adaptive distance protection," *International Journal of Electrical Power & Energy Systems*, Vol. 130, 2021, 107018.
- [21] **Hossam A. Abd el-Ghany**, E. S. Ahmed and A. E. ELGebaly, "A Reliable Loss of Excitation Protection Technique Based on EPFA for Synchronous Generators," in *IEEE Transactions on Power Delivery*, vol. 37, no. 3, pp. 1445-1455, June 2022, doi: 10.1109/TPWRD.2021.3087538.
- [22] Walaa S. Sakr, Ragab A. EL-Sehiemy, Ahmed M. Azmy, **Hossam A. Abd el-Ghany**, "Identifying optimal border of virtual power plants considering uncertainties and demand response," *Alexandria Engineering Journal*, Vol. 61, no. 12, pp. 9673-9713, 2022. <https://doi.org/10.1016/j.aej.2022.02.070>.
- [23] F. M. Aboshady and **Hossam A. Abd el-Ghany**, "Compensating the combined impact of hexagonal phase-shifting transformer and fault resistance on the distance protection," *International Journal of Electrical Power & Energy Systems*, Vol. 141, 2022, 108188, <https://doi.org/10.1016/j.ijepes.2022.108188>.
- [24] **Hossam A. Abd el-Ghany**, Ismail A. Soliman and Ahmed E. ELGebaly, "An advanced wide-area fault detection and location technique for transmission lines considering optimal phasor measurement units allocation," *Alexandria Engineering Journal*, Vol. 61, no. 5, pp. 3971-3984, 2022. <https://doi.org/10.1016/j.aej.2021.09.022>.

## **Conference Proceedings**

- [25] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Nagy I. Elkalashy, Essam M. Rashad, "Optimal Siting and Sizing of DG Units Based on Protection Schemes and Technical Aspects," *The 17th International Middle East Power Systems Conference MEPCON'15*,

Mansoura University, Egypt, December 15-17, 2015, Mansoura University, Mansoura, Egypt, December 15-17, 2015.

- [26] Ahmed Magdy Abeid, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "An Advanced Traveling-Wave Fault-Location Algorithm for Simultaneous Faults," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 747-752.
- [27] Ahmed M. Elkholy, **Hossam A. Abd El-Ghany**, Ahmed M. Azmy, "A Proposed Load Shedding Mechanism for Enhancing Intentional-Islanding Dynamics of Distribution Systems," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 870-875.
- [28] Mohamed Attia Saad, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "Optimal DG Deployment to Improve Voltage Stability Margin Considering Load Variation," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 765-771.
- [29] Aber. A. Kholeif, **Hossam A. Abd el-Ghany** and Ahmed M. Azmy, "Impact of supply voltage variation on V-I trajectory identification method," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 839-844.
- [30] Eatmad W. Nahas, Diaa-Eldin A. Mansour, **Hossam A. Abd el-Ghany**, M.M. Eissa, "Accurate Fault Analysis and Proposed Protection Scheme for Battery Energy Storage System Integrated with DC Microgrids," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 911-917.
- [31] Ahmed M. Elkholy, **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, "An Advanced Load Shedding Algorithm to Enhance Intentional-Islanding Dynamics," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 797-802.
- [32] **Hossam A. Abd el-Ghany**, Mahmoud A. ElSadd, Eman S. Ahmed, "A New Method of Unintentional Islanding Detection for Distribution Network with Synchronous DG," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 1046-1052.
- [33] Ismail A Soliman, **Hossam A. Abd el-Ghany**, Ahmed M Azmy, "A Proposed Algorithm for Current Differential Protection of Delta Hexagonal Phase Shifting Transformer," *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 785-790.
- [34] **Hossam A. Abd el-Ghany**, Abd El-Fattah Hamad, Ahmed Mohamed Azmy, "Optimal DG allocation in LV distribution networks considering repairing fault periods," *25th International Conference on Electricity Distribution (CIRED 2019)*, Madrid, Spain; paper No. 627, 3-6 June 2019.
- [35] **Hossam A. Abd el-Ghany**, Ahmed Mohamed Azmy, Mohamed Attia Saad, "Technical Performance Enhancement of Distribution System via Optimal DG Deployment," *25th International Conference on Electricity Distribution (CIRED 2019)*, Madrid, Spain; paper No. 104, 3-6 June 2019.
- [36] Ismail A Soliman, **Hossam A. Abd el-Ghany**, Ahmed M Azmy, "A Comprehensive Differential Protection Scheme for Delta Hexagonal Phase Angle Regulating Transformers," *2019 AEIT International Annual Conference*, Florence, Italia, 18-20 Sep. 2019.

- [37] **Hossam A. Abd el-Ghany**, Ahmed M. Azmy, Ahmed Magdy Abeid, “A Robust Travelling-Wave Simultaneous Faults Location Considering Parameters Variations,” 2019 AEIT International Annual Conference, Florence, Italia, 18-20 Sep. 2019.
- [38] W. S. Sakr, **Hossam A. Abd El-Ghany**, Ragab A. El-Sehiemy and Ahmed M. Azmy, “A day-ahead optimal RERs scheduling approach for virtual power plants considering different loading conditions,” 2019 21st International Middle East Power Systems Conference (MEPCON), Tanta University, Egypt, 2019.
- [39] Eman S. Ahmad, **Hossam A. Abd El-Ghany** and Almoataz Y. Abdelaziz, “An Integrated Power Differential Scheme for Tertiary Power Transformer Protection,” 2019 21st International Middle East Power Systems Conference (MEPCON), Tanta University, Egypt, 2019.
- [40] **Hossam A. Abd el-Ghany**, A. M. Azmy and A. A. Kholeif, "Adaptive Load Identification Considering Effects of Harmonics and Voltage Variations," 2021 22nd International Middle East Power Systems Conference (MEPCON), 2021, pp. 174-181, [doi: 10.1109/MEPCON50283.2021.9686223](https://doi.org/10.1109/MEPCON50283.2021.9686223).
- [41] A. -E. F. S. Hammad, A. M. Azmy and **Hossam A. Abd el-Ghany**, "Proposed Simplified Formula for Calculating Technical Losses in Radial Distribution Feeders Considering Repairing-Fault Periods," 2021 22nd International Middle East Power Systems Conference (MEPCON), 2021, pp. 659-664, [doi: 10.1109/MEPCON50283.2021.9686278](https://doi.org/10.1109/MEPCON50283.2021.9686278).

### **Book Chapter**

- [42] **Hossam A. Abd el-Ghany**, E. M. Rashad, A. M. Azmy, and N. I. Elkalashy, “Identifying Hosting Capacity of Renewable DG Units in Smart Grids Considering Protection Systems,” In: Das, S.K., Islam, M.R., Xu, W. (eds) *Advances in Control Techniques for Smart Grid Applications*. Springer, Singapore, 2022. [https://doi.org/10.1007/978-981-16-9856-9\\_6](https://doi.org/10.1007/978-981-16-9856-9_6).