نشاطـات عضو هيئة التدريس خلال العـام 1434/1433هـ

Activities of Faculty Member during Academic year 2012/2013G

القسـم: الهـنـدسـة الكهربائية

Department: Electrical Engineering

بــراءات اخـتــراع سجلت خلال العام الجامعي 1434/1433هـ **Patents registered during the academic year 2012/2013**	
Wahied Gharieb Ali ABDELAAL, "Piezoelectric Dual-Syringe Insulin Pump", US-Patent No 8,382,703 B1, Feb. 26, 2013. http://www.freepatentsonline.com/8382703.pdf http://www.uspto.gov/web/patents/patog/week09/OG/html/1387-4/US08382703-20130226.html	**1**
"GSM/GPRS based Open Conductor Detection System in Medium Voltage - Distribution Networks" by Yasin Khan, Hossam Eldin Talaat, Uzair Ahmad, Nazar Hussain Malik, Abdulrehman Ali Al-Arainy, 1) (Submitted to Saudi Aramco for patent and filed the case in Sept. 2012)	**2**

The graduate student supervised received "Bronze Medal" at KSU during "The First Graduate Students Annual Scientific Meeting (24-25 April, 2013)	**1**

اوراق علمية

منشورة خلال العام الجامعي 1433/1434هـ

Papers Published during the academic year 2012/2013

Author(s), Year of publication, Title of paper, Journal name, vol, pp

1	A. Elshamy, A. Rashed, A. Mohamed, O. Faragallah, Y. Mu, **S. Alshebeili**, and F. El-Samie, "Optical Image Encryption Based on Chaotic Baker Map and Double Random Phase Encoding," *IEEE/OSA J. Lightwave Technology*, (Accepted for publications).
2	M. Siraj and **S. A. Alshebeili**, "RPCRAN: A Routing Protocol for Cognitive Radio Ad hoc Networks," *Int. J. Innovative Computing, Information, and Control*, (Accepted for publications).
3	Ahmed I. Sulyman, Ishtiaq Ahmad, Hossam Hassanein, and **Saleh A. Alshebeili**, "Capacity Analysis of Threshold-based SNR Scheduler in LTE Systems," *EURASIP Journal on Advances in Signal Processing* (Accepted for publication).
4	M. Siraj and **S. A. Alshebeili**, "Performance Enhancement in Multi Hop Cognitive Radio Wireless Mesh Networks," *Int. J. Innovative Computing, Information, and Control*, (Accepted for publication).
5	Ishtiaq Ahmad, Ahmed I. Sulyman, Abdulhameed Alsanie, Awad Kh. Alasmari, and **Saleh A. Alshebeili**, "Spectral Broadening Effects of High Power Amplifiers in MIMO-OFDM Relaying Channels," *EURASIP Journal on Wireless Communications and Networking*, February 2013.
6	Y. Al-Zahrani, A. I. Sulyman, S. Al-Dosari, A. Alsanie, and **S. A. Alshebeili,** "Two-Stage Constellation Partition Algorithm for Reduced-Complexity MIMO-MLD Systems," *IET Communications*, vol. 6, issue 18, pp. 3350-3357, Dec. 2012.
7	Hazza Alharbi, Mohammed Mobien Mohammed, **Saleh A. Alshebeili**, and Fahd Alturki, "Automatic Modulation Classification of Digital Modulations in Presence of HF Noise," *EURASIP Journal on Advances in Signal Processing,* pp. 1-14, November 2012.
8	Mohammed Mobien Mohammed and **Saleh A. Alshebeili,** "Fixed-Point Implementation of Fast QR Decomposition Recursive Least-Squares Algorithms (FQRD-RLS): Stability Conditions and Quantization Errors Analysis," *Int. J. Circuits Systems and Signal Processing*, Dec. 2012.
9	Ridha Djemal, Kais Belwafi, Walid Kaaniche, and **Saleh Alshebeili**, "A novel

	Hardware/Software Embedded System based on Automatic Censored Target Detection for Radar Systems," *Int. J. of Electronics and Communications* (AEU), November 2012
10	Abdelouahab Bentrcia and **Saleh A. Alshebeili**, "New Linear PIC Detectors Based on Non-Monotone Line-Search Techniques," *Signal Processing*, vol. 92, issue 2, Dec. 2012.
11	Furaih Alshaalan, **Saleh A. Alshebeili,** and Abdulkareem Adinoyi, "Throughput-aware and interference-aware RRM techniques for OFDMA-based networks," *The Arabian J. for Science and Engineering*, Dec 2012.
12	Ahmed A. Telba and Wahied G. Ali, "**Real Time Measurements of Hysteresis in a Piezoelectric Nanopositioning Stage**", Journal of Instruments and Experimental Techniques, Vol.55, Issue 4, pp.508-512, July_2012. (***ImpactFactor*=0.357**). http://link.springer.com/article/10.1134%2FS0020441212030141#page-1
13	Sutrisno W. Ibrahim and Wahied G. Ali, **"A Review on Frequency Tuning Methods for Piezoelectric Energy Harvesting Systems",** J. Renewable Sustainable Energy **4**, 062703 (2012); http://dx.doi.org/10.1063/1.4766892 (*29 pages*), (**Impact factor=1.2**)*,* Published on line 13 November 2012.
	Wahied G. Ali and Sutrisno W. Ibrahim, **"Power Analysis for Piezoelectric Energy Harvester**", *Energy and Power Engineering*, Vol. 4, No. 6, 2012, pp. 496-505. doi: 10.4236/epe.2012.46063. Published Online November 2012 **(*Impact factor=0.12),*** http://www.scirp.org/journal/PaperInformation.aspx?paperID=25084
15	Sutrisno W. Ibrahim and Wahied G. ALI, "**Power Enhancement for Piezoelectric Energy Harvester**", *Lecture Notes in Engineering and Computer Science,* ISSN 2078-0958 (Open Access Journal), volume 2198, Issue 1, pp.1018-1023, 2012. http://journaldatabase.org/articles/power_enhancement_for_piezoelectric.html other link http://www.doaj.org/doaj?func=abstract&id=1098149&recNo=66&toc=1&uiLanguage=en
16	A. Telba and Wahied G. Ali, "**Modeling and Simulation of Piezoelectric Energy Harvesting**", *Lecture Notes in Engineering and Computer Science,* ISSN 2078-0958 (Open Access Journal) Volume 2198, Issue 1, pp.959-961, 2012. http://journaldatabase.org/articles/modeling_simulation_piezoelectric.html other link http://www.doaj.org/doaj?func=abstract&id=1098138 **Publisher**: Newswood and International Association of Engineers
17	S. Q. Ali, T. P. Imthias Ahamed, and N. H. Malik, "Learning Automata Algorithms for load scheduling" Electrical Components and Power Systems, Vol. 41 No. 3 pp 286-303, January 2013.

18	Ammar Anwar Khan, Nazar Malik, Abdulrehman Al-Arainy, Saad Alghuweinem, "Online Partial Discharge Monitoring in Underground Power Cables - Challenges and Oversights", International Review on Modelling and Simulation, pp. 2582-2589, Vol.5, No.6, ISSN:1974-9821, December 2012.
19	T. P. Imthias Ahamed, S. Danish Maqbool and N.H. Malik "Reinforcement Learning Approaches to Load Scheduling", International Review of Modelling Optimization and Simulation –Vol. 5 No. 5, pp 2160-2168, October 2012
20	Hany M. Hasanien, and Essam. A. Al-Ammar, "Dynamic Response Improvement of Doubly Fed Induction Generator Based Wind Farm Using Fuzzy Logic Controller", Journal of Electrical Engineering, Slovakia, vol. 63, no. 5, pp. 281-288, September 2012.
21	F. R. Pazheri1, M. F. Othman, N. H. Malik and E. A. Al-Ammar, "Pollution Emission Reduction with Minimum Transmission Loss in Power Dispatch including Renewable Energy and Energy Storage," International Review of Electrical Engineering (I.R.E.E.), vol. 7, n. 5, pp. 5769-5778, October 2012.
22	Muhammad Babar, Essam A. Al-Ammar and Nazar H. Malik, "Numerical Simulation Model of Multijunction Solar Cell", Journal of Energy Technologies and Policy, The International Institute of Science, Technology and Education, Vol. 2 No. 7, pp 44-53, ISSN 22243232.
23	F. R. Pazheri, M. F. Othman, N. H. Malik and A. A. Al- Arainy, "Optimization of Pollution Emission in Power Dispatch including Renewable Energy and Energy Storage," Research Journal of Applied Sciences, Engineering and Technology vol. 4, n. 23, pp. 5149-5156, Dec. 2012.
24	Y. Khan, F. R. Pazheri, N. H. Malik, A. A. Al- Arainy and M. I. Qureshi, "Novel approach of estimating grounding pit optimum dimensions in high resistivity soils", Electric Power Systems Research 92 (2012) 145– 154, Nov. 2012.
25	F. R. Pazheri, N. H. Malik, M. F. Othman and M. Babar, "Optimum Power Dispatch Problems: An Overview", International Journal of Engineering Inventions, Vol. 1, no. 6, pp. 49-54, Oct.2012.
26	Telba, J. M. Noras " Minimization of Jitter in Digital Systems usingDual Phase-locked Loops" Volume 2 Issue 8 , February 2013 page 105-107 (International Journal of Engineering and Innovative Technology (IJEIT))

27	Ahmed A. Telba and Wahied G. Ali "Real Time Measurements of Hysteresis in a Piezoelectric Nanopositioner Stage" (Journal instruments and Experimental Techniques Vol. 3, - 2012). ISI
28	A. Telba and Wahied G. Ali, "Modeling and Simulation of Piezoelectric Energy Harvesting", Lecture Notes in Engineering and Computer Science, ISSN 2078-0958 (open access journal) Volume 2198, Issue 1, pp.959-961, 2012.
29	Ahmed A. Telba and Hamad S. Alhokail "Wideband Low Jitter Frequency Synthesizer Modeling and simulation" International Journal of Engineering and Innovative Technology (IJEIT) Volume 2, Issue 12, June 2013
30	Dr. A. Aburas and K. Al-Mashouq, "QMeter Tools for Quality Measurement in Telecommunication Networks'', International Journal of Computer Networks & Communication, Wireless & Mobile Networks, June, 2011.
31	Zuhair M. Hejazi, "A Fast Design Approach of Novel Microstrip Multiband Bandpass Filters", Microwave & Optical Technology Letters (MOTL), Vol. 54, Issue 4, pp. 1075–1079, 2012.
32	EER Improvement for Room Air-Conditioners in Saudi Arabia Energy and Power Engineering, 2012, 4, 446-439, doi:10.4236/epe.2012.46058 Published Online November 2012, (http://www.SciRP.org/journal/epe) عبد الله محمد الشعلان
33	Effect of SVC on Composite Power System Reliability Level International Journal of Advanced Research in Electrical, Electronics and Instrumentation عبد Engineering. (IJAREEIE), Paper ID E1610022, Vol. II, Issue III, March 2013 الله محمد الشعلان
34	تحليل وحساب نسب ترشيد استهلاك الطاقة الكهربائية للقطاع السكني فى المملكة العربية السعودية مجلة جامعة الملك سعود – العلوم الهندسية – العدد الخاص باللغة العربية – مايو 2013. عبد الله محمد الشعلان
35	Reliability evaluation in generation expansion planning based on the expected energy not served. Journal of King Saud University – Engineering Sciences (2012) 24, 11–18. عبد الله محمد الشعلان
36	"Infrared optical properties of silica aerogel substrates", M. Abdel-Rahman and **N. Debbar**, *Optoelectron. Adv. Mater.-Rapid Commun.*, Vol. **6** (5-6), pp 532-534 (2012).
37	"Fabrication and characterisation of high sensitivity Copper-Copper oxide-Copper (Cu-CuO-Cu) metal-insulator-metal (MIM) tunnel junctions" M. Abdel-Rahman, M. Syaryadhi and **N. Debbar**, *Electronics Letters,* Vol. **49** (5) pp 363-364 (2013).

38	"A slot antenna-coupled microbolometer for detection at 94 GHz", M. Abdel-Rahman, N.F. Al-Khalli, A.H. Kusuma, and **N. Debbar**, *Progress In Electromagnetics Research Letters*, Vol. **32**, pp 137-143 (2012).
39	Ehab Awad, et al "Silicon CMOS Interdigitated-MSM photodetector and self-mixer for low-cost crash-avoidance LADAR system" IEEE International Design and Test conference, Doha, December 2012.
40	**Ahmed Iyanda Sulyman**, Ishtiaq Ahmad, Hossam Hassanein, and Saleh lshebeili, "Capacity analysis of threshold-based SNR scheduler in LTE systems," *EURASIP Journ. On Advances in Signal Processing 2013*, 2013:82, Apr. 2013
41	Hassan A. Ahmed, **Ahmed Iyanda Sulyman**, Hossam S. Hassanein, ``BER Performance Improvement of Mobile Dual-hop Relaying Systems using Directional Antennas", *IET Commun.*, Apr. 2013.
42	I. Ahmad, **Ahmed Iyanda Sulyman**, A. Alsanie, et. al., "Spectral Broadening Effects of High-Power Amplifiers in MIMO-OFDM Relaying Channels," *EURASIP Journ. Wireless Commun. Networks*, 2013:32, February 2013
43	Memon, M.I., **Fathallah, H**., Yu, S., "Fast speed semiconductor ring lasers using optical injection locking", Acta Physica Polonica A, 123 (2), pp. 180-182. April, 2013.
44	Esmail M. and **Fathallah H.,** "Optical Coding for Next Generation Survivable Long-Reach Passive Optical Networks", IEEE/OSA Journal of Optical Communications and Networking, vol. 4, Issue 12, pp. 1062-1074, December 2012.
45	Hussein Seleem, Abdelouahab Bentrcia and **Habib Fathallah,** "A Projected Parallel Interference Cancellation for Asynchronous Upstream OCDMA-PON," IEEE Communications Letters, vol. 16, pp. 1721-1724, Nov. 2012.
46	Esmail M. and **Fathallah H.,** "Physical Layer Monitoring Techniques for TDM-Passive Optical Networks: A Survey" IEEE Communications Surveys and Tutorials, Vol.PP issue: 99 pp.1-16, June 2012.
47	<u>**Hamsakutty Vettikalladi**</u> ,Olivier Lafond, Mohamed Himdi, Membrane Antenna Arrays fed by Substrate Integrated Waveguide for V-band Communication **Microwave and optical technology Letters**, vol.55, No.8, Auguest 2013
48	T. Sarrazin, <u>**Hamsakutty Vettikalladi,**</u> Olivier Lafond, Mohamed Himdi and N. Rolland, Low Cost 60 GHz New Thin Pyralux Membrane Antennas fed by Substrate Integrated Waveguide**, Progress in Electromagnetics Reseach B**, Vol. 42, 207-224, 2012

49	Hany M. Hasanien, and Essam. A. Al-Ammar, "Dynamic Response Improvement of Doubly Fed Induction Generator Based Wind Farm Using Fuzzy Logic Controller", Journal of Electrical Engineering, Slovakia, vol. 63, no. 5, pp. 281-288, September 2012. **ISI Journal**
50	S.M. Muyeen, Hany M. Hasanien, and J. Tamura, "Reduction of frequency fluctuation for wind farm connected power systems by an adaptive artificial neural network controlled energy capacitor system", *IET Renewable Power Generation*, vol. 6, no. 4, pp. 226-235, July 2012. **ISI Journal**
51	Syed Q. Ali, and Hany M. Hasanien, "Frequency control of isolated network with wind and diesel generators by using adaptive artificial neural network controller", *International Review of Automatic Control,* vol. 5, no. 2, pp. 179-186, March 2012.
52	Hany M. Hasanien, and S. M. Muyeen, "Speed control of grid-connected switched reluctance generator driven by variable speed wind turbine using adaptive neural network controller", *Electric Power Systems Research, Elsevier,* vol. 84, no. 1, pp. 206-213, March 2012. **ISI Journal**
53	Y. Khan, F. N. Budiman, A. Beroual, N. H. Malik, and A. A. Al-Arainy, ""The Estimation of Size and Position of Contaminating Particle Adhering to the Insulating Spacer Surface in GIS." European Physical Journal AP: Applied Physics. 62: 20801 DOI: 10.1051/epjap/2013130007 (2013)
54	F. N. Budiman, Y. Khan, A. Beroual, N. H. Malik , and A. A. Al-Arainy, "Utilization of Artificial Neural Network for Estimation of Size and Position of Metallic Particle Adhering to Spacer in GIS."" IEEE Transactions on Dielectrics and Electrical Insulation (Accepted)
55	Y. Khan*, A. A. Khan, F. N. Budiman, A. Beroual1, N. H. Malik and A. A. Al-Arainy, "Partial Discharge Pattern Analysis Using Support Vector Machine for the Estimation of Size and Position of Metallic Particle Adhering to Spacer in GIS" IEEE Trans. On Power Delivery TPWRD-00606-2013 0.5, Submitted on21.05.2013
56	Yasin Khan, Faisal Pazheri, Sami Ghannam1, Abdulrehman Al-Arainy and Nazar Malik, "Medium Voltage Broken Conductors in Inland Arid Desert Remain Undetected" Electrical Power Components and systems EPCS, Submitted on 21.04.2013
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	S.H. Islam, M.A. Al-Eshaikh, and Zainul Huda, "Synthesis and Characterization of High-Energy Ball-Milled Tungsten Heavy Alloy Powders", Arabian Journal for Science and Engineering, (available on-line), January 2013.
58	M.A. Al-Eshaikh, A. Kadachi, M.M. Sarfraz, "Determination of Uranium content in Phosphate Ores using Different Measurement Techniques", X-ray Spectrum, 2013

59	M.M. Sarfraz, W.A. Farooq, Mohammad A. Al-Eshaikh, Ahmed N. Kadachi, A.S. Aldwayyan and Kaleem Ahmad, "Analysis of Allyl Di-Glycol Carbonate by Laser Induced Breakdown Spectroscopy", International Journal of Laser Physics, 23(2013).
60	M. Alansi, I. Elshafiey, A. Al-Sanie, S. Alghuwainem, and H. Al-Sharari, "MC-OFDMA FOR MULTI-USER DETECTION SCHEMES IN POWERLINE COMMUNICATION" Accepted for Publication in Journal of Circuits, Systems, and Computers.
61	"FPGA implementation of space-time adaptive processing (STAP) algorithm for target detection in passive radars," Zia. U. Mahmood, Mubashir Alam, Khalid Jamil, and Zeyad. O. Al-Hekail, Progress In Electromagnetics Research (PIER) C, Vol. 35, pp: 35-48, 2013
62	M.A. Al-Eshaikh and M.I. Qureshi, "Probing of dielectric properties of high density poly-ethylene/calcium carbonate (HDPE/CaCO$_3$) nano-micro composite: International Journal of Physical Sciences, Vol. 8, No. 4, pp. 167-174, January 30, 2013.
63	Hadeed Sher, Khaled Addoweesh, "Power storage options for hybrid electric vehicles - A survey", Journal of Renewable and Sustainable Energy, 4, 052701 (2012), ISI journal
64	Hadeed Sher, Khaled Addoweesh, "Micro-Inverters - Promising Solutions in Solar Photovoltaics", Energy for Sustainable Development, 16 (2012) 389–400, ISI journal
65	Ali M. Eltamaly, Khaled E. Addoweesh, Umar Bawah, " Techno-Economical Modeling of Hybrid Renewable Energy System in Saudi Arabia ", accepted in The Arabian Journal for Science and Engineering (AJSE), ISI journal
66	Abdullah M. Noman, Khaled E. Addoweesh, and Hussein M. Mashaly, "DSPACE Real-Time Implementation of MPPT-Based FLC Method," International Journal of Photoenergy, vol. 2013, Article ID 549273, 11 pages, 2013. doi:10.1155/2013/549273, , ISI journal
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68	Umar Bawah, Khaled E. Addoweesh, Ali M. Eltamaly, " Comparative Study of Economic Viability of Rural Electrification Using Renewable Energy Resources versus Diesel Generator Option in Saudi Arabia" accepted in Journal of Renewable and Sustainable Energy, ISI journal

Papers Presented in Conferences, Symposia during the academic year 2012/2013

Author(s), Year, Title of paper, Conference title, Location, Date

1	M. Siraj and **Saleh. Alshebeili**, "Performance Enhancement of Cognitive Radio Wireless Mesh Networks by Link Scheduling and Beamforming," in *Proc. Saudi International Electronics, Communications and Photonics Conference*, Riyadh, Saudi Arabia April 27- 30, 2013.
2	Turky AlOtaiby, Mobien Shoaib, **Saleh Alshebeili**, Hazza Alharbi, "Support Vector Machine Based Classifier for Digital Modulations in Presence of HF Noise," in *Proc. Saudi International Electronics, Communications and Photonics Conference*, Riyadh, Saudi Arabia April 27- 30, 2013.
3	Mobien Shoaib, **Saleh Alshebeili**, "A Fast Widely-Linear QR-decomposition least squares (FWL-QRD-RLS) algorithm," in Proc. *International Conference on Acoustics, Speech, and Signal Processing* (ICASSP'13), Vancouver, Canada, May 2013.
4	Hazza Alharbi, Mobien Shoaib, **Saleh Alshebeili**, Turky AlOtaiby, "An Overview of Feature-Based Methods for Digital Modulation Classification," in *Proc. The 1st International Conference on Communications, Signal Processing, and their Applications* (ICCSPA'13), Sharja, UAE, February 2013.
5	Amr Ragheb, Mobien Shoaib, **Saleh Alshebeili**, and Habib Fathallah, "Inverse QR Decomposition (IQRD) Blind Equalizer for QAM Coherent Optical Systems", in Proc. *High Capacity Optical Networks and Enabling Technologies* (HONET) *Conference*, Turkey, Dec. 2012.
6	**S. Majzoub**, "Reducing Random-Dopant Fluctuation Impact on Core-Speed and Power Variability in Many-Core Platforms," *International Design and Test*
7	M.A. Al-Eshaikh and M.I. Qureshi, "Influence of Plasma Treated Nano SiO_2 on the Breakdown Strength of Electrical Insulating Oil", The 2nd Saudi International Nanotechnology Conference 2012 (2SINC), Nov. 11-13, 2012.
8	Ammar Anwar Khan, Nazar Malik, Abdulrehman Al-Arainy, Saad Alghuweinem, "A Review of Condition Monitoring of Underground Power Cables", IEEE International Conference on Condition Monitoring and Diagnosis, Bali, Indonesia, pp. 909- 912, 23-27, September, 2012.
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11-Basil AsSadhan and José M. F. Moura, *An Efficient Method to Detect Periodic Behavior in Botnet Traffic by Analyzing Control Plane Traffic*, US - Egypt Cyber Security Workshop, Cairo, Egypt, May 27 - 30, 2013.

12-Telba **" Low Jitter Circuits in Digital System using Phase Locked Loop** "in The 2013 International Conference of Electrical and Electronics Engineering The World Congress on Engineering 2013 (WCE 2013) will take place in London, U.K., 6- 8 July, 2013.

13-Memon, M.I., **Fathallah, H.**, "Dependence of strength of optical injection locking on the size of micro-ring laser," Asia Communications and Photonics Conference, ACP, art. no. AF4A.35, 2013

14-**"Improving Target Signature in Software Defined, Multi-Band, Multi-Channel Passive Radar**", **Mubashir Alam** and Khalid Jamil,
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15-H. Seleem, A. Bentrcia, **H. Fathallah,** 2012, "Projected Parallel Interference Cancellation Multiuser Detector for Asynchronous Upstream OCDMA-PON," High Capacity Optical Networks and Enabling Technologies (HONET) Conference, Istanbul, Turkey, Dec. 2012.

16-Amr Ragheb, Mobien Shoaib, Saleh Alshebeili, and **Habib Fathallah,** 2012, "Inverse QR Decomposition (IQRD) Blind Equalizer for QAM Coherent Optical Systems", in Proc. High Capacity Optical Networks and Enabling Technologies (HONET) Conference, Istanbul, Turkey, Dec. 2012.

17-Ragheb, A.M.; **Fathallah, H.**, 2012, "Candidate Modulation Schemes for Next Generation- Passive Optical Networks (NG-PONs)," High Capacity Optical Networks and Enabling Technologies (HONET) Conference, Istanbul, Turkey, 21-24 Dec. 2012.

18-**Hamsakutty Vettikalladi** ,Olivier Lafond, Mohamed Himdi, Membrane Antenna Arrays fed by Substrate Integrated Waveguide for 60GHz Communication, IEEE PS/URSI conference will be held in USA, July 2013 (Accepted)

19-**Hamsakutty Vettikalladi,** Olivier Lafond and mohamed Himdi, et. al, 60 GHz Membrane Antennas fed by Substrate Integrated Waveguide, **International Symposium on Antennas and Propagation (ISAP2012-Japan),** (selected for the best student paper competition)

20-**Hamsakutty Vettikalladi,** Olivier Lafond and mohamed Himdi, 60 GHz Membrane Supported Aperture Coupled Patch Antenna based on FR4 and New Thin Pyralux Substrate**, European Microwave Week, Amsterdam 2012**,

	21-M.A. Al-Eshaikh and M.I. Qureshi, "Influence of Plasma Treated Nano SiO_2 on the Breakdown Strength of Electrical Insulating Oil", The 2nd Saudi International Nanotechnology Conference 2012 (2SINC), Nov. 11-13, 2012.
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	25-Farzana Islam, Hany M. Hasanien, Ahmed Al-Durra, and S.M. Muyeen, "A New Control Strategy for Smoothing of Wind Farm Output using Short-Term Ahead Wind Speed Prediction and Flywheel Energy Storage System", *in the proceeding of **American Control Conference, ACC**, 27-29 June 2012, Montreal*, Canada. 26-A. Al-Hassan, **Ahmed Iyanda Sulyman**, I. Ahmad, and A. Alsanie, "Combined Effects of Power Amplifier and Channel Estimation Error on the Capacity of MIMO-OFDM Systems," *Proc. IEEE-SIECPC-2013 Conference*, Riyadh, Saudi Arabia, Apr. 2013
	27-Effect of SVC on composite power system reliability GCC-Cigrè, Shangri-la Hotel, Muscat, Oman, 14th Nov. 2012 الشعلآن
	28-الخبرات العالمية في إدارة الأحمال وترشيد الطاقة الكهربائية الشعلآن_ المؤتمر العام الرابع للاتحاد العربي للكهرباء 7- 9 يناير 2013 - فندق شيراتون – قطر
	29-إعتبارات حماية البيئة في محطات توليد الكهرباء الشعلآن الملتقى الهندسي الخليجي السادس عشر 2 – 4 فبراير 2013 – فندق هيلتون – جدة، الهيئة السعودية للمهندسين

	30-Abdullah M. Noman, Khaled E. Addoweesh, and Hussein M. Mashaly , A Fuzzy Logic Control Method for MPPT of PV Systems, IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society, Montreal Canada from 25 to 28 October 2012
31	Sher, Hadeed Ahmed; Addoweesh, Khaled E; Khan, Yasin; Kashif, Syed Abdul Rahman; , "Performance of inverter fed induction motor under open circuit DC link capacitor," IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society , vol., no., pp.651-655, 25-28 Oct. 2012

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	33-Abdurahman alshamaa, Khaled E. Addoweesh, "Optimum Sizing of Hybrid PV/Wind/Battery/Diesel System Considering Wind turbine Parameters Using Genetic Algorithm", the 2012 IEEE International Conference on Power and Energy (PECON 2012) 2 - 5 December 2012.
	34-Ali F Murtaza, Hadeed Ahmed Sher, Chiaberge M, Boero D, De Giuseppe M and Khaled E Addoweesh, "A Novel Hybrid MPPT Technique for Solar PV Applications Using Perturb & Observe and Fractional Open Circuit Voltage Techniques" Proceedings of 15th International Conference on Mechatronics – Mechatronika 2012, Prague, Czech Republic, December 5-7, 2012, p 274-281
	35-Abdullrahman A. Al Shamma'a, Khaled E. Addoweesh, "Optimum Wind Turbine Matching with Wind regime in Saudi Arabia", The 15th IEEE STEM conference, Dhahran, Saudi Arabia on Dec. 17-20, 2012
	36-Hadeed Ahmed Sher, Khaled E Addoweesh, Yasin Khan, Ali F. Murtaza, "Harmonic Analysis of Inverter fed Induction Motor under faulted DC link Capacitor", The 15th IEEE STEM conference, Dhahran, Saudi Arabia on Dec. 17-20, 2012

التي تمت الموافقة على مقترحها خلال العام الجامعي 1434/33هـ (تعبأ من قبل الباحث الرئيسي فقط ويذكر اسماء الباحثين المشاركين، وفي حالة كون الباحث الرئيسي من قسم آخر فيمكن للباحث المشارك تعبئتها)

Research Projects whose proposals are approved during the academic year 2012/2013 (filled in by PI only and should state the CIs.   In case that the PI is from another department, the CIs can fill in this part)

تاريخ الانتهاء End Date	مدة المشروع Duration	الميزانية المقدرة (ريـال) Budget	الجهة الداعمة 13Sponsor	الباحـثـيـن Researchers	اسم المشروع Project Title
15 July 2012	**6 months**	**21000**	Sustainable Energy Technology (SET), King Saud University	Hany M. Hasanien and Syed Q. Ali	Wind generator stability improvement by adaptive neural network controlled superconducting magnetic energy storage
30 October 2012	**10 months**	**25000**	Saudi Aramco Chair of Electrical Power, King Saud University,	Hany M. Hasanien, Syed Q. Ali, and Essam A. Al-Ammar	Transient stability enhancement of DFIG based Wind farm using advanced controllers
Mar2012	1 year	SAR 29950	College of Engineering, King Saud University	Dr. Hamsakutty Vettikalladi (PI) DR. Majeed Alkanhal (Co-I)	BCB-Si based millimeter wave antenna design for 60GHz high speed indoor communication system
Completed	12 Months	8244	Research Center	Dr. M.A. Al-Eshaikh and Dr. M.I. Qureshi	Evaluation of Food Grade Corn Oil for Electrical Applications
18/4/1435	10 months	20100	Research Center	Dr. M.A. Al-Eshaikh and Dr. Salah ud Din Khan	Safety Aspects of Small to Medium Sized Nuclear Reactors
Completed	10 months	5311	Research Center	Ahmed N. Kadachi and Dr. M.A. Al-Eshaikh	Limits of Detection in XRF Spectroscopy
December 2013	**One year**	29,990 SAR	College of Engineering Research Center at King Saud University	- Dr Sohaib Majzoub - Dr Mohamed Ramy	Amplifier and Filter Design and Fabrication for a Thermal Infrared Sensor

كتــب مؤلـفـة او فــصل في كتـاب تم نشرها خلال العام الجامعي 1434/33هـ **Authored Books or Chapter(s) in Books published during the academic year 2012/2013** **Author(s), Year, Title of book or chapter , Publisher, Country**	
Hadeed Ahmed Sher, Khaled E. Addoweesh and Yasin Khan (2013). Harmonics Generation, Propagation and Purging Techniques in Non-Linear Loads, An Update on Power Quality, Dr. Dylan Lu (Ed.), ISBN: 978-953-51-1079-8, InTech, DOI: 10.5772/53422. Available from: http://www.intechopen.com/books/an-update-on-power-quality/harmonics-generation-propagation-and-purging-techniques-in-non-linear-loads	**1**
S. Majzouband H. Diab, Reconfigurable Systems for Cryptography and Multimedia Applications, book chapter, in the book "Data Acquisition Applications," edited by Z.Karakehayov, ISBN 978-953-51-0713-2, InTech, August 8, 2012.	**2**

كتـب متـرجـمـة تم نشرها خلال العام الجامعي 1434/33هـ **Translated Books published during the academic year 2012/2013** **Author(s), Year, Title of book and its author(s) , Publisher, Country**	
NO	**1**

رسائل الماجستير التي تم اعتماد مقترحها في مجلس القسم أو تم مناقشتها خلال العام الدراسي 1434/1433هـ **Master theses whose proposals endorsed by department council or presented during the academic year 2012/2013**				
اعتمدت /نوقشت **Endorsed/Presented**	اسم المشرف **Supervisor name**	اسم الطالب **Student Name**	عنوان رسالة الماجستير **Title of Master Thesis**	م
	Dr. **S. A. Alshebeili** (Advisor) and Dr. Basil AsSadhan (Co-advisor)	Rayyan Alshaalan	*Constan False Alarm Rate Anomaly-Based Approach for Network Intrusion Detection*	**1**
	Dr. **S. A. Alshebeili** (Advisor) and Dr. Basil AsSadhan (Co-advisor)	Abdulmuneem Bashaiwth	*Network Traffic Analysis for Botnet Detection*, M.Sc Thesis, Department of Electrical Engineering	**2**

رسائل الدكتوراه التي تم اعتماد مقترحها في مجلس القسم أو تم مناقشتها خلال العام الدراسي 1434/1433هـ **PhD theses whose proposals endorsed by department council or presented during the academic year 2012/2013**				
اعتمدت /نوقشت **Endorsed/Presented**	اسم المشرف **Supervisor Name**	اسم الطالب **Student Name**	عنوان رسالة الدكتوراه **Title of PhD Thesis**	
	Dr. **S. A. Alshebeili** (Advisor)	M. Hadi	*Compressed Sensing Based Processing for Multiband/Multi-frequency Passive Radars*	1
Presented	**Dr**. **S. A. Alshebeili** (Advisor) and Dr. Fahad Al-Turkey (Co-advisor)	Hazza Al-Harbi	*Automatic Modulation Recognition over HF Channel*	2
	Dr Habib Fathallah (advisor) and **Dr. S. A. Alshebeili** (Co-advisor).	Amr Mohamed Ragheb	*Multi-format Optical Transmission System for Next Generation Terabit Networks*	3

	خــدمـــة المــجــتــمـــع خلال العام الجامعي 1434/33هـ (رئاسة قسم أو عمـل اداري بالكلية او الجامعة، لقاء اذاعي او تلفزيوني، مقالة في صحف، عمل تطوعي خارج الجامعة، تحكيم اوراق علمية ومقترحات بحثية، رئاسة لجان علمية اوجلسات لمؤتمرات اوندوات، لجان الكلية والجامعة فقط، الاشراف على الكراسي والمراكز البحثية) **Community Service (department, college or university administration, media meeting, article in newspapers, external voluntary work, reviewing of scientific papers & proposals, chairing conferences or symposia committees or sessions, college or university committees, supervising research chairs or centers)**	
1	2012-present	Director of KACST Technology Innovation Center in Radio Frequency and Photonics for e-Society (RFTONICS).
2	2011-2012	Member of PhD Committee, College of Computer and Information Sciences
3	2010-present	Member of Faculty of Eng. Excellence in Teaching Committee