Annual Research & Community Service Report (2019/2020)

Introduction:

Electrical Engineering Department is committed to conduct profound research that contributes to the advancement of engineering knowledge and engineering practices. The department encourages its faculty members to produce intellectual contributions of high quality. The department schedule the workload in such a way that each faculty member could have more time to be used for scholarly activities. The department recognizes the intellectual contributions by its faculty members that create new knowledge, strengthen its scholarly environment, or find practical solutions to industry and community-related problems. In addition, the department encourages research collaboration and dissemination of research interest among its faculty members. Financial and technical support, internally and externally, are made available and easily accessible to the department faculty.

The electrical engineering program chair has established a Scientific Research and Community Service Committee to plan, execute and manage the research activities in the department. The committee members are listed in Table 1.

Table 1. Scientific Research and Community Service Committee

Committee Members	Role
Dr. Muhammad Irfan	Committee Head
Dr. Ahmad Alzahrani	Member
Dr. Belqasem Aljafari	Member
Dr. Seif Shebel	Member

The Program Research Mission:

To develop a research culture in the department and to contribute to the society in establishing knowledge based economy.

The Program Research Objectives:

- Contribution to building a knowledge-based society, and assistance to the priorities of industry and economic growth in the Kingdom.
- Develop and support a more active research culture at the department.
- Discover and innovate through high quality competitive research in electrical engineering.
- Establish national and international partnerships and develop collaborative projects within NU and with external academic and industrial partners.
- Contributing to the community service through organizing technical seminars and workshops.

Research Directions:

The department has identified eight areas for the fundamental and applied research. These research areas are identified keeping in view the Vision 2030 of the Kingdom.

- Renewable Energy
- Stability of Power Systems
- Modernization of Power Grid
- Communications and Internet of things
- NANO technology and MEMS
- Cognitive Radio and Emerging Technologies
- Image Processing and Multimedia Communications
- Artificial Intelligence and Machine Learning

Research Facilities:

The department has the state of the art laboratories to conduct the research. The list of the laboratories are given below:

- Renewable Energy Lab
- National Instruments Hardware and Software Set-Up
- Power Machines Lab
- Control Lab
- Circuits Lab
- Communication Lab

Mapping of EE Research KPIs with NU KPIs

The EE KPIs related research have been mapped with the KPIs of the Najran University KSA. The mapping table has been given below.

Research KPIs of the University / **Research KPIs of EE**	**S10.2** Number of citations in refereed journals in the previous year per full time equivalent faculty members	**S10.3** Proportion of full time member of teaching staff with at least one refereed publication during the previous year
KPI-P-16 Citations rate in refereed journals per faculty member	√	
KPI-P-15 Rate of published research per faculty member		√
KPI-P-14 Percentage of publications of faculty members		√

Research Publications in Academic Year 2019/2020:

The EE faculty members have published 19 papers in various peer reviewed journals. The 18 papers were published in ISI impact factor journals and 05 papers were published in SCOPUS indexed journals. The total faculty members in the department are 19 out of which 16 faculty members have Ph.D degrees. The target of publishing a minimum 15 journal papers per year has been achieved. The journal publications list has been given in Table 2 and the analysis have been given in Table 3. The EE faculty members have also published 08 papers in various conferences. The target of 04 conference papers per year has been achieved. The conference publications list has been given in Table 4.

Table 2. Journal Publication (June 2019 to April 2020)

No.	Article Title	Authors	Journal Title	Date	ISSN	Impact factor ISI/ SCOPUS
1	Optimal Power Flow Incorporating Frequency Security Constraint	N. Nguyen, **S. Almasabi**, A. Bera and J. Mitra	IEEE Transactions on Industry Applications, vol. 55, no. 6, pp. 6508-6516	Nov.-Dec. 2019.		ISI Impact factor 3.347
2	Conducting polythiophene/α-Fe2O3 nanocomposite for efficient methanol electrochemical sensor	Farid A Harraz, M Faisal, **Mohammed Jalalah**, AA Almadiy, SA Al-Sayari, MS Al-Assiri	Applied Surface Science	2020	0169-4332	ISI Impact factor 5.155
3	Polythiophene doped ZnO nanostructures synthesized by modified sol-gel and oxidative polymerization for efficient photodegradation of methylene blue and gemifloxacin antibiotic	M Faisal, Farid A Harraz, **Mohammed Jalalah**, MA Alsaiari, SA Al-Sayari, MS Al-Assiri	Materials Today Communications	2020	235 2-4928	ISI Impact factor 1.859
4	Hydrazone chemistry assisted DNAzyme for the analysis of double targets	Anzhi Sheng, Lihong Su, **Mohammed Jalalah**, MS Al-Assiri, Farid A Harraz, Juan Zhang	Chemical Communications	2020	1359-7345	ISI Impact factor 6.164
5	Highest accumulated microalgal lipids (polar and non-polar) for biodiesel production with advanced wastewater treatment: Role of lipidomics	Muhammad Arif, Yanrui Bai, Muhammad Usman, **Mohammed Jalalah**, Farid A Harraz, MS Al-Assiri, Xiangkai Li, El-Sayed Salama, Chunjiang Zhang	Bioresource technology	2019	0960-8524	ISI Impact factor 6.669

6	Recursive Implicit Time Domain Technique for Modeling Dispersive Materials	**M. S. akond**	Optical and Quantum Electronics	21 February, 2020.	0306-8919	ISI Impact factor 1.547
7	Solar Tracker: An Essential Need of Solar Photovoltaic Energy Generation System	Faizan Arif Khan, S. Hasan Saeed, **Saifur Rahman**, Ahmad F Minai	TE&M	January-February 2020	ISSN: 0193-4120	Scopus
8	Performance Analysis of Boosting Classifiers in Recognizing Activities of Daily Living	**Saifur Rahman**, **Muhammad Irfan**, Mohsin Raza, Khawaja Moyeezullah, Ghori, Shumayla Yaqoob, Muhammad Awais	International Journal of Environmental Research and Public Health MDPI	February 2020		ISI, Impact Factor: 2.468, Q1
9	Dataset on Specific UV Absorbances (SUVA254) at Stretch Components of Perak River Basin	Teh Sabariah Abd Manan, Taimur Khan, Wan Hanna Melini Wan Mohtar, Abdulnoor A Ghanim, Sara Yavari, **Muhammad Irfan**	Data in Brief Journal-Elsevier,	April 2020		SCOPUS
10	Design of a Novel Electric Diagnostic Technique for Fault Analysis of Centrifugal Pumps	**Muhammad Irfan**, **Alwadie A** and A. Glowacz	Vol. 9, No. 23, *Applied Sciences MDPI*,	November 2019.		ISI, Impact Factor: 2.217, Q2
11	Detection of Deterioration of Three-Phase Induction Motor using Vibration Signals	A. Glowacz, Witold Glowacz, Jarosław Kozik, **Muhammad Irfan**, Z. Faizal Khan	*Measurement Science Review*,	October 2019.		ISI, Impact Factor: 1.122, Q2
12	Modelling of Fault Frequencies for Distributed Damages in Bearing Raceways	**Muhammad Irfan**	*Journal of Nondestructive Evaluation*	September 2019		ISI, Impact Factor: 2.131, Q2
13	An Internet of Things Based Bed-Egress Alerting Paradigm Using Wearable	Muhammad Awais , Mohsin Raza, Kamran Ali, Zulfiqar Ali,	Vol. 19, No. 11, *Sensors MDPI*	June 2019.		ISI, Impact Factor: 3.031, Q1

	Sensors in Elderly Care Environment	**Muhammad Irfan**, Omer Chughtai, Imran Khan , Sunghwan Kim and Masood Ur Rehman				
14	Dielectric properties of complete oil palm trunk sample (healthy and unhealthy	T. Saeidi, I. Ismail, W. P. Wen, and **A. R. H. Alhawari**	AIP Advances	June 2019	2158-3226	ISI IF = 1.579
15	Smart Monitoring System Of Najran Dam	**A. H. M. Almawgani**	International Journal of Electrical and Computer Engineering (IJECE)	30/3/2020	2088 - 8708	SCOPUS
16	Increasing the required slip range of wound induction generator in wind power systems	Ali Dalabeeh, Al-Mofleh Anwar, Tariq M. Younes, Ayman Al-Rawashdeh, **Ayman Hindi**	Bulletin of Electrical Engineering and Informatics	April 2020	2302-9285	SCOPUS
17	A family of scalable non-isolated interleaved DC-DC boost converters with voltage multiplier cells	**A Alzahrani**, M Ferdowsi, P Shamsi	IEEE Access	2019		ISI Impact Factor 3.745
18	High-voltage-gain DC–DC step-up converter with bifold dickson voltage multiplier cells	**A Alzahrani**, M Ferdowsi, P Shamsi	IEEE Transactions on Power Electronics	2019		ISI Impact Factor 6.373
19	A Polyaniline-Based Redox-Active Composite Gel Electrolyte with Photo-Electric and Electrochromic Properties	**Aljafari, B**., Indrakar, K., M. K., Biswas, K., Stefanakos, E., and Takshi, A.	ChemElectroChem, 6(23), 5888-5895.	Dec. 2019		ISI Impact factor 3.76
20	Enhanced Photoresponsivity of All-Inorganic (CsPbBr3) Perovskite Nanosheets Photodetector with Carbon Nanodots (CDs)	H Algadi, C Mahata, J Woo, M Lee, M Kim, T Lee	Electronics 8 (6), 678	2019		ISI Impact factor 2.412
21	Superhydrophobic, Transparent, and Stretchable 3D Hierarchical Wrinkled Film-Based Sensors for Wearable Applications	BN Sahoo, J Woo, H Algadi, J Lee, T Lee	Advanced Materials Technologies 4 (10), 1900230	2019		
22	Facile method for the preparation of high-performance photodetectors with a GQDs/perovskite bilayer heterostructure	H Algadi, C Mahata, B Sahoo, M Kim, WG Koh, T Lee	Organic Electronics 76, 105444	2020		ISI Impact factor 3.310
23	Biomimetic-inspired micro-nano hierarchical structures for capacitive pressure sensor applications	C Mahata, H Algadi, J Lee, S Kim, T Lee	Measurement 151, 107095	2020		ISI Impact factor 3.364

Table 3. Analysis of Journal Publications

Total Faculty Members	Ph.D faculty members	Total Journal Papers	Papers/ Ph.D faculty member	Remarks
19	16	23	23/16 = 1.43	The annual target to publish a minimum 15 journal papers has been achieved.

Table 4. Conference Publication (June 2019 to April 2020)

No.	Article Title	Authors	Conference Title	Place and Date
1	Capacity Credit Evaluation of Wind Farm Considering Impact of Turbine Hub Level	N. Nguyen, **S. Almasabi** and J. Mitra	North American Power Symposium (NAPS),	Wichita, KS, USA, 2019
2	Assessment of Dispersive Materials Using Recursive Implicit Time Domain Techniques	**Akond, M., and Alsuwian, T**	2020 IEEE 8th International Conference on Photonics	Paper was accepted on last February 2020- under publication
3	Use Of Closed Loop System Using Arduino For Different Parameters In Farming	**Saifur Rahman**	2nd International Conference And Workshop On Telecommunication, Computing, Electronics And Control	Yogyakarta, Indonesia, from19-22 November
4	IoT Based Future Garbage Prediction and Energy Saving System for Solid Waste Management for Smart City	Tariq Ali, Alwadie. A and **Muhammad Irfan**	International Conference on Renewable Energies and Power Quality (ICREPQ)	Tenerife, Spain, April, 2020
5	Garbage Monitoring and Collection with Future Prediction of Waste Material by Using IoT Smart System	Tariq Ali, Alwadie. A and **Muhammad Irfan**	International Conference on Control, Automation, Robotics and Vision Engineering (ICCARVE),	Rabat, Morocco, November 2019.
6	A Condition Monitoring System for the Analysis of Bearing Distributed Faults	**Muhammad Irfan**, Nordin Saad, Ansar Ali, K Vinoth Kumar, Muhammad Aman Sheikh and M Awais,	The 10th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON)	New York, USA, October 2019.
7	Design of Electronic System for Speed Detection of Vehicles	**Ayman Taher Hindi**	International Conference on Engineering and Computing (ICEEComp2020)	14-15 March 2020 at Melaka, Malaysia
8	Efficient system for monitoring and protection of Transformer parameters	**AYMAN TAHER HINDI**	Academicsera 57th International Conferenc	Jeddah, Saudi Arabia, 14th-15th November, 2019

Research Citations:

The research citations of the each faculty member for the year 2019 and 2020 (until April 2020) are shown in Table 5. In 2019, research papers of EE faculty member were cited 429 times. In 2020, research papers of EE faculty member were cited 265 times. The citations data has been collected from the google scholar profiles.

Table 5. Research Citations

Sr. No	Faculty Member Name	Total Citations in 2019	Total Citations in 2020	Google Scholar Profile Link
1	Dr. Saleh AlMasabi	25	5	
2	Dr. Adam Reda Alhawari	37	27	https://scholar.google.com/citations?user=y50D-98AAAAJ
3	Dr. Ayman Hindi	2	1	https://scholar.google.com/citations?hl=ar&user=Tvq-g3AAAAAJ
4	Dr. Abdulkarem Hussein Mohammed Almawgani	4	8	https://scholar.google.com/citations?user=5GjnJeAAAAAJ&hl=ar
5	Dr. Muhammad Irfan	94	45	https://scholar.google.com/citations?user=3Ovr9eQAAAAJ&hl=en
6	Dr. Mohammed Saeed Jalalah	43	20	https://scholar.google.com/citations?user=PJdo3zIAAAAJ&hl=ar
7	Dr. Saifur Rahman	5	0	
8	Dr. Seif Shebel	3	1	https://scholar.google.com/citations?user=S3kqtNIAAAAJ&hl=ar#d=gsc_md_hist
9	Dr. Ahmad Alzaharani	89	33	https://scholar.google.com/citations?hl=en&user=LRP1lHcAAAAJ&view_op=list_works&sortby=pubdate
10	Dr. Belqasem Aljafari	4	8	https://scholar.google.com/citations?hl=en&user=JWrjzogAAAAJ&view_op=list_works&gmla=AJsN-F7fkveoyPXyl4usxyD0uOLBl543whNLdAngqUdO_5UNNdNaAVLa-nNn27c_ynZV-nkPpdmaKkOWi41a-fbxC0sitrq910rbYNKmH3YuwoYKYMciBG8
11	Dr. Hassan Algadi	120	117	https://scholar.google.com/citations?hl=en&user=7AYbQP8AAAAJ&view_op=list_works&sortby=pubdate
Total Citations		**429**	**265**	

Research Grants:

The EE faculty members are keen to apply for research grants. The main source of research grants is the Deanship of Scientific Research (DSR), Najran University KSA. The DSR provides opportunity to every Ph.D faculty member to get 02 research grants in every year. Furthermore, the Ministry of Education KSA and King Abdulaziz City for Science & Technology (KACST) also open research grants occasionally. The research grants secured by EE faculty members in year 2019 and 2020 are given in Table 6 and 7. The target of research grants in 05 year research plan of EE department has been to get minimum 05 grants every year. The Table 6 and Table 7 indicates that the yearly target to secure minimum 05 research grants has been achieved.

Table 6. Research Grants in Year 2019

No.	Grant Title (Project Title)	Project Members	Grant Awarded By	Grant Amount	Grant Acceptance (Released) Date	Grant Duration
1	Develop Recursive Implicit Time Domain Technique for Modeling Photonic Devices	Dr. Mohammad Shahed Akond	Deanship of Scientific Research, Najran University Saudi Arabia	25,000 SAR	January 2019	01 Year
2	Hybrid image steganography method using LZW and genetic algorithm for hiding confidential data	Dr. Abdulkarem Hussein Mohammed Almawgani Dr. Adam Reda Hasan Alhawari	Deanship of Scientific Research, Najran University Saudi Arabia	26,400 SAR	January 2019	01 Year
3	Omega-Shaped Tag Antenna with Inductively-Coupled Feeding Using U-Shaped Stepped-Impedance Resonators for RFID Applications	Dr. Adam Reda Hasan Alhawari, Dr. Abdulkarem Hussein Mohammed Almawgani, and Dr. Hisham Alghamdi	Deanship of Scientific Research, Najran University Saudi Arabia	38,400 SAR	January 2019	01 Year
4	Performance Analysis of Boosting Classifiers in Recognizing Activities of Daily Living	Dr. Saifur Rahman	Deanship of Scientific Research, Najran University Saudi Arabia	14,400 SAR	January 2019	01 Year
5	ANALYSIS OF VOLATILE ORGANIC COMPOUND USING ELECTRONIC NOSE	Dr. Saifur Rahman, Prof. Dr. Abdullah Alwadie	Deanship of Scientific Research, Najran University Saudi Arabia	26,400 SAR	January 2019	01 Year

6	Modeling of Fault Frequencies for Distributed Damages in Bearing Raceways	Dr. Muhammad Irfan	Deanship of Scientific Research, Najran University Saudi Arabia	19,800 SAR	January 2019	01 Year
7	Design of a Novel Electric Diagnostic Algorithm for Fault Analysis of Centrifugal Pumps	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie	Deanship of Scientific Research, Najran University Saudi Arabia	31,800 SAR	January 2019	01 Year
8	IoT Based Smart Dumpsters Monitoring and Municipal Solid Waste Management System for Smart Cities	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie	Ministry of Education KSA	240,000 SAR	August 2019	1 Years

Table 7. Research Grants in Year 2020

No.	Grant Title (Project Title)	Project Members	Grant Awarded By	Grant Amount	Grant Acceptance (Released) Date	Grant Duration
1	Reversible-Smart Window System for Privacy, Energy Efficiency and Daylighting in Saudi Residential Buildings	Abdultawab Qahtan, Adbulkarem Almawgani, Hisham Alghamidi	NU		April 2020	1 year
2	Miniaturized High Gain Multi Wideband Wearable Antenna as WBAN Breast Cancer Control	Dr. Adam Reda Hasan Alhawari, Dr. Ayman Taher Hindi, and Dr. Hisham Alghamdi	NU	38400	April 2020	One year
3	Investigation of UWB Graphene-based Transparent Mm-wave Antenna for Skin Cancer Diagnosis 3D Imaging	Dr. Adam Reda Hasan Alhawari, Dr. Abdulkarem Hussein Mohammed Almawgani, and Dr. Ayman Taher Hindi	NU	38400	April 2020	One year

4	Performance Evaluation of Radio Over Fiber Based Hybrid Time Division Multiplexing and Wavelength Division Multiplexing Passive Optical Networks	Dr. Saifur Rahman	Deanship of Scientific & Research, Najran University	14400	April 2020	12 months
5	Heterogeneous Cellular Networks: A key Enabler for 5G and Beyond	Dr. Saifur Rahman	Deanship of Scientific & Research, Najran University	14400	April 2020	12 months
6	A Novel Feature Extraction and Classification Technique for the Condition Monitoring of the Motor	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie	Deanship of Scientific & Research, Najran University	31,800 SAR	April 2020	12 months
7	Visible Light Communication based Intelligent Transportation and Roadside Networks	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie	Deanship of Scientific & Research, Najran University	31,800 SAR	April 2020	12 months
8	Multi-Level Deep Convolutional Neural Network for Identifying the Coronavirus Infected People through Facial Expression Recognition (Special Grant on COVID-19)	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie, Dr. Saifur Rahman, Dr. Tariq Ali	Deanship of Scientific & Research, Najran University	43,800 SAR	April 2020	12 months

9	Towards Corona Infection Ratio Prediction through Mathematical Modeling and Artificial Intelligent Techniques (Special Grant on COVID-19)	Dr. Muhammad Irfan, Prof. Dr. Abdullah Alwadie, Dr. Saifur Rahman, Dr. Tariq Ali	Deanship of Scientific & Research, Najran University	43,800 SAR	April 2020	12 months

Community Service:

The Research & Community Service Committee (RCSC) is committed to the promotion of faculty participation in community service activities through the organization and coordination between faculty members and the Center for Scientific Research (CSR) at the College of Engineering. Each year, the committee encourages faculty members to participate in delivering workshops and scientific seminars for both other faculty members and students of EE department.
Last year, and due to the (COVID-19) Coronavirus pandemic, many workshops and sessions that were planned have been delayed, rescheduled or canceled. Committee members were able to get responses from only five faculty members about the workshops they have presented throw ought the academic year. The following table shows some of the titles that has been contributed and the respective name(s) of the faculty member(s) who were responsible for its presentation.

No.	Title seminars/workshops organized	Name of faculty member
1	Is Artificial Intelligence Only the Future of World?	Dr. Muhammad Irfan
2	Emerging Trends and Technologies: A Future?	Dr. Muhammad Irfan
3	Introduction to Graduation Project	(Dr. Adam, Dr. Abdulkarim, Dr. Muhammad Irfan)
4	How to use CLOSO	Dr. Saifur Rahman Masihur Rahman
5	Citation Management Support for Graduation Project	Dr. Abdulkarem Almawgani
6	Graduation Project Workshop	Dr. Adam Alhawari
7	Schedules	Eng. Esam Al Yafrosi
..		

Besides the sessions, workshops, and lectures that the faculty have contributed, many professional development workshops have been organized by the Deanship of Development and Quality (DDQ). Our faculty members of EE department have attended and contributed in these workshops. Each faculty member is assigned a number of workshops to attend within their vacant hours and according to their roles and responsibilities in the department committees and their duties.
The following table shows 19 such workshops and training sessions and the proposed group of people targeted by each training course or workshop. These workshops are vital to the continuous development of faculty professional skills and understanding of the fine details of the process of quality.

م	الدورة التدريبية	الجدارة التدريبية	مدة التدريب			الفئة المستهدفة	مكان التدريب	
			التاريخ هجري / ميلادي	عدد الأيام	عدد الساعات		القسم الرجالي	القسم النسائي
١	مهارات العرض الفعال	جودة عمل إداري	الثلاثاء ١٤٤١/٧/١هـ ٢٠٢٠/٢/٢٤م	يوم	٥	إداريات	-	قاعة التدريب بالمبنى الإداري بكليات البنات
٢	الاتجاهات الحديثة في التخطيط ومتابعة تنفيذ الأعمال.	جودة عمل إداري	الأربعاء ١٤٤١/٧/٢هـ ٢٠٢٠/٢/٢٦	يوم	٥	إداريين وإداريات	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
٣	أساسيات الأمن السيبراني.	جودة عمل إداري	الثلاثاء ١٤٤١/٧/٨هـ ٢٠٢٠/٣/٣م	يوم	٥	إداريين وإداريات	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
٤	ابتكارية حل المشكلات وصنع القرار	جودة عمل إداري	الأربعاء ١٤٤١/٧/٩هـ ٢٠٢٠/٣/٤م	يوم	٥	إداريين	قاعة التدريب بمبنى التعلم الإلكتروني	-
٥	بناء الهوية الإلكترونية للباحث	بحث علمي	الاثنين ١٤٤١/٧/١٤هـ ٢٠٢٠/٣/٩م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
٦	نظرية الذكاءات المتعددة في التدريس.	مهارات التدريس والتطوير المهني	الثلاثاء ١٤٤١/٧/١٥هـ ٢٠٢٠/٣/١٠م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
٧	الاعتمادات الدولية للبرامج الاكاديمية	نظم جودة	الأربعاء والخميس ١٦-١٧/٧/١٤٤١هـ ١١-١٢/٣/٢٠٢٠م	يومان	١٠	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
٨	تقييم أداء الطلاب باستخدام سلم التقدير اللفظي (Rubric)	مهارات التدريس والتطوير المهني	الاثنين ١٤٤١/٧/٢١هـ ٢٠٢٠/٣/١٦م	يوم	٥	أعضاء هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	-
٩	مهارات توظيف الأساليب الإحصائية أثناء إعداد البحوث العلمية.	بحث علمي	الثلاثاء ١٤٤١/٧/٢٢هـ ٢٠٢٠/٣/١٧م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات

م	الدورة التدريبية	الجدارة التدريبية	مدة التدريب			الفئة المستهدفة	مكان التدريب	
			التاريخ هجري / ميلادي	عدد الأيام	عدد الساعات		القسم الرجالي	القسم النسائي
١٠	تقارير البرامج والمقررات في ضوء الأخطاء الشائعة	نظم جودة	الأربعاء والخميس ٢٣-١٤٤١/٧/٢٤هـ ١٨-٢٠٢٠/٣/١٩م	يومان	١٠	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١١	إدارة المراجع البحثية (Mendeley)	بحث علمي	الاثنين ١٤٤١/٧/٢٨هـ ٢٠٢٠/٣/٢٣م	يوم	٥	أعضاء هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	-
١٢	إعداد وتنفيذ اختبار Exit Exam	مهارات التدريس والتطوير المهني	الثلاثاء ١٤٤١/٧/٢٩هـ ٢٠٢٠/٣/٢٤م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٣	إعداد الخطة التشغيلية وغلق دائرة الجودة بالبرامج الأكاديمية	نظم جودة	الأربعاء والخميس ١-١٤٤١/8/٢هـ 25-2020/3/26م	يومان	١٠	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٤	بناء الاختبارات في ضوء مخرجات التعلم.	مهارات التدريس والتطوير المهني	الاثنين ١٤٤١/٨/٦هـ ٢٠٢٠/٣/٣٠م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٥	الإطار السعودي للمؤهلات	نظم جودة	الثلاثاء ١٤٤١/٨/٧هـ ٢٠٢٠/٣/٣١م	يوم	٥	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٦	بناء الخطط الدراسية في ضوء معايير الجودة والنظام المعتمد في نجران	نظم جودة	الأربعاء والخميس ٨-٩-١٤٤١/٨/٩هـ ١-٢٠٢٠/٤/٢م	يومان	١٠	أعضاء لجان الخطط الدراسية بالكليات	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٧	نظام تقييم أداء أعضاء هيئة التدريس بجامعة نجران	نظم جودة	الاثنين ١٤٤١/٨/١٣هـ ٢٠٢٠/٤/٦م	يوم	٥	أعضاء وعضوات هيئة تدريس	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات

م	الدورة التدريبية	الجدارة التدريبية	مدة التدريب			الفئة المستهدفة	مكان التدريب	
			التاريخ هجري / ميلادي	عدد الأيام	عدد الساعات		القسم الرجالي	القسم النسائي
١٨	إعداد التقارير السنوية لوحدات التطوير والجودة	نظم جودة	الأربعاء ١٤٤١/٨/١٥هـ ٢٠٢٠/٤/٨م	يوم	٥	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات
١٩	نظام تنفيذ ومتابعة الخطة الاستراتيجية لجامعة نجران	نظم جودة	الثلاثاء ١٤٤١/٨/٢١هـ ٢٠٢٠/٤/١٤م	يوم	٥	رؤساء الأقسام ومنسقي البرامج ومنسقي الجودة في البرامج	قاعة التدريب بمبنى التعلم الإلكتروني	قاعة التدريب بالمبنى الإداري بكليات البنات

Concluding Remarks:

- The 05 years research plan of EE department targets to publish minimum 15 journal papers and 04 conference papers. This target has been achieved and research performance is satisfactory.
- The 05 years research plan of EE department targets to get minimum 05 research grants in every year. This target has been achieved and research performance is satisfactory.
- The 05 years research plan of EE department targets to organize minimum 10 technical workshops/seminars/trainings in EE department. This target has not been achieved and it is recommended to encourage all faculty members to organize minimum one workshop/seminar/training in each academic year.
- It is recommended that all faculty members reply to the emails sent for data collection related to research and community service.

Report Prepared By:	Dr. Muhammad Irfan Signature: Date: 29 August 2020		
Reviewed By:	Dr. Ahmad Alzahrani Signature: Date: Aug 31	Dr. Belqasem Aljafari Signature: Date:29 Aug 2020	Dr. Seif Shebel Signature: Date: 31-8-2020