



Najran University  
College of Engineering  
Electrical Engineering Department

# Annual Report of Program KPIs and Closing the Quality Loop

التقرير السنوي لمؤشرات الأداء للبرنامج وغلق دائرة الجودة

1439-1440 H

## 1. Program KPIs and Analysis

### A. KPIs of NCAAA

NCAAA Standards	KPI Code #	Key Performance Indicator	KPI Target Benchmark	KPI Actual Benchmark 1439/1440 H	KPI Internal Benchmark Civil Engineering 1439/1440 H	KPI External Benchmark King Khalid University Electrical Engineering Department 1439/1440 H	KPI New Target Benchmark	Remarks
<b>-1- Mission and Goals</b>	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	80%	81%	0%	57.5%	80%	Satisfied and the measured value is higher than the target benchmark
<b>-3- Teaching and Learning</b>	KPI-P-02	Students' Evaluation of quality of learning experience in the program	80%	81.4%	77%	NA	80%	Achieved the target. However, not all student performed the evaluation, so they should be encouraged to log into the evaluations links through the website and do the evaluation every semester
	KPI-P-03	Students' evaluation of the quality of the courses	80%	80.8%	82%	NA	80%	Satisfied. The academic advisors committee should increase the awareness of students about the importance of neutrally exact evaluation
	KPI-P-04	Completion rate	50%	100%	56%	92.3%	50%	Completion rate is higher than the target value.
	KPI-P-05	First-year students retention rate	90%	100%	0%	76.3%	90%	The first-year students retention rate is satisfactory and higher than the target benchmark
	KPI-P-06	Students' performance in the professional and/or national examinations	NA	NA	NA	NA	NA	The proposed professional and/or national examinations

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								exams is not effected yet
	KPI-P-07	Graduates' employability and enrolment in postgraduate programs a) employed b) enrolled in further study	30% 10%	18% 9%	31.3%	NA	30% 10%	18% of the graduates were employed. This value is less than the target. In order to improve this value, local employers should be invited to participate in the program activities in order to introduce the graduate students the vacancies available in the private sectors
	KPI-P-08	Average number of students in the class	15	10	10	20	15	The average number of students in the class is satisfactory
	KPI-P-09	Employers' evaluation of the program graduate's proficiency	60%	59%	97.4%	74.6%	60%	Satisfactory. More employers should be invited and motivated to participate in the evaluation of the program graduate's proficiency
<b>-4- Students</b>	KPI-P-10	Students' satisfaction with the offered services	60%	38% For academic advising  11% For career advising	55%	80%	60%	The satisfaction rate is less than the target. Thus, improvement to the offered services is needed to get higher satisfaction rate. Furthermore, students' services and activities are planned and regularly monitored. However, collecting feedback from students and formulating action

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								plans based on this feedback is still below the ambition.
<b>-5- Teaching Staff</b>	KPI-P-11	Ratio of students to teaching staff	15:1	5:1	8:1	28.4:1	15:1	The ratio of students to teaching staff is better the target level. This low ratio will increase the effectiveness of the education provided by the department and increase the chance for the student's participation in the class.
	KPI-P-12	Percentage of teaching staff distribution	3 Professor (15%) 5 Associate Professor (25%) 10 Assistant Professor (50%) 2 Lecturers (10%)	2 Professor (10.5%) 4 Associate Professor (21%) 8 Assistant Professor (42.1%) 5 Lecturers (26.3%)	Professor (8%) Associate Professor (13%) Assistant Professor (53%) Lecturers (26%)	Professor = 3.7% Associate Professor = 11.1% Assistant Professor = 48.1% Lecturers = 33.3%	3 Professor (15%) 5 Associate Professor (25%) 12 Assistant Professor (50%) 2 Lecturers (10%)	The faculty affiliated with the department are available with all ranks such as professor, associate professor, assistant professor and lecturers
	KPI-P-13	Proportion of teaching staff leaving the program	≤ 10%	0%	0%	7.4%	≤10%	0% of the teaching staff leaving the program indicates that the program has good organizational culture and good working environment
	KPI-P-14	Percentage of publications of faculty members	80%	56%	61.54%	92.6%	80%	The percentage of published articles for all faculty members is satisfactory. This due to the presence of a university research funding unit which

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								supports the research projects in the university in competitively and clear manner
	KPI-P-15	Rate of published research per faculty member	1	1.17	0.85	2	1	The rate of published research per faculty member is satisfactory and higher than the target value
	KPI-P-16	Citations rate in refereed journals per faculty member	10	7	8.3	2	10	The citations rate in refereed journals per faculty member is satisfactory and close to the target benchmark
<b>-6- Learning Resources, Facilities, and Equipment</b>	KPI-P-17	Satisfaction of beneficiaries with the learning resources	90%	85%	80%	NA	90%	The satisfaction value is 85%, which is below the target of 90%. However, the results showed good satisfaction for the facilities, Equipment and other learning resources

## Analysis of NCAAA KPIs and Benchmarks

Based on the KPIs distributed across the NCAAA's six standards and benchmarks, which are the minimum indicators to be measured periodically (quarterly or annually) and based on the Target Benchmark, this report monitors quality performance indicators of Electrical Engineering Program for the academic year of 1439/1440 H (Actual Benchmark) and compare it with internal and external Benchmark. Benchmark as a study and follow up by the program management for the progress and development of the program in order to determine the achievement of the goals and the mission by identifying strengths and weaknesses. Performance quality indicators, and then developing plans to improve these weaknesses. Through the table of indicators of the quality of the performance of the program for the academic year 1439/1440 H, the strengths and weaknesses of the quality indicators of the performance of each criterion, standard, can be identified, and then recommendations for improvement, indicating the mechanism and the implementation period as follows:

### Standard 1: Mission and Goals

<b>Strength</b>	: The actual percentage of the achieved indicators of the program operational plan objectives is 81% which is above the target value 80%.
<b>Weaknesses</b>	: None
<b>KPIs Close Loop</b>	: KPI-P-01
<b>KPIs Close Loop in Progress</b>	: None
<b>Recommendations</b>	: Establishing further dissemination of the vision and mission of the program through the establishment of seminars and workshops and the participation of students and graduates of the department in reviewing the wording of its texts.

### Standard 3: Teaching and Learning

<b>Strength</b>	: <ul style="list-style-type: none"> <li>– The overall students' evaluation of quality of learning experience in the program is 81.4% above the target value and better than the value measured by Civil engineering program which is 77%.</li> <li>– Students' evaluation of the quality of the courses is 80.8% which higher than the target value.</li> <li>– Completion rate is 100% and higher than the target benchmark of 50%.</li> <li>– First-year students retention rate is 100%, higher than the target value of 90%.</li> <li>– Average number of students in the class is satisfactory.</li> <li>– Employers' evaluation of the program graduate's proficiency is 59%, close to the target of 60%.</li> </ul>
<b>Weaknesses</b>	: <ul style="list-style-type: none"> <li>– Students' performance in the professional and/or national examinations has not been able to be measured due to the lack of information/documents.</li> </ul>

- The proportion of graduates of bachelor's programs who were employed and enrolled for further study during the last year of graduation is 18% and 9%, which is less than the target of 30% and 10%, respectively.

- KPIs Close Loop** :
- KPI-P-02
  - KPI-P-03
  - KPI-P-04
  - KPI-P-05
  - KPI-P-06
  - KPI-P-08
  - KPI-P-09

- KPIs Close Loop in Progress** : KPI-P-07

- Recommendations** :
- Students should be encouraged to follow their study plans and this should be monitored by academic advisors.
  - Local employers should be invited to participate in the program activities in order to introduce the graduate students the vacancies available in the private sectors.
  - The proposed professional and/or national examinations exams is not effected yet.
  - The student's activities committee should be providing some activities to encourage students with the career in future.
  - The Alumni unit should be work effective with students to explain them the career advising.
  - Increase number of student's enrolment.

#### Standard 4: Students

- Strength** :
- The admission process for Electrical Engineering program is automated through an online platform that manages all aspects of the admission process.
  - Register SIS is used at University website that integrates data recording and retrieval systems and more features.
  - All requirements are approved from the Board of Trustees and are explained and posted on the admission
  - There is a booklet given to students at admission time (and whenever requested by anyone).

- Weaknesses** :
- Students' satisfaction with the offered services is 38% for academic advising and 11% for career advising, which is much less compared to the target value of 60%. Also, these measured values are much less than the ones measured by the internal and external benchmarks.

- KPIs Close Loop** : None

- KPIs Close Loop in Progress** : KPI-P-10

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<b>Recommendations</b>	: – Keep continuous support and maintenance of Najran University websites. – More effort needs to be made to assure that student advisors are familiar with details of course requirements. – More effort is needed to increase the students' attendance of the orientation meeting. – Students services and activities are planned and regularly monitored. However, collecting feedback from students and formulating action plans based on this feedback is still below the ambition. – Students services are evaluated using satisfaction surveys. Improving the analysis and the action plans driven from these surveys is needed. – Students' participation is very limited and that can be attributed to the intensive nature of education.
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### Standard 5: Teaching Staff

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<b>Strength</b>	: – The ratio of students to teaching staff is very good with 1 faculty member for each 5 students. This low ratio will increase the effectiveness of the education process provided by the department and increase the chance for the student's participation in the class. – The percentage of teaching staff distribution in the department is available with all ranks, i.e., professor, associate professor, assistant professor, and lecturer. – Proportion of teaching staff leaving the program is 0%. It indicates that the program has good organizational culture and working environment. – The rate of published research per faculty member is 1.17, which is above the target value of 1. – Presence of awareness and motivation by the faculty members in the department and the board of college and university about the importance of the advancement of the research process. – The university follows a competitive policy in funding scientific research.
<b>Weaknesses</b>	: – The percentage of publications of all faculty members is 56%, which less than the target value of 80%. – The citations rate in refereed journals per faculty member is lower than the target but satisfactory.
<b>KPIs Close Loop</b>	: – KPI-P-11 – KPI-P-12 – KPI-P-13 – KPI-P-14 – KPI-P-15 – KPI-P-16
<b>KPIs Close Loop in Progress</b>	: None
<b>Recommendations</b>	: – More emphasize is required on increasing the public and institutional awareness about the importance of scientific research on sustainable development.

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- Linking scientific research to the needs of society through partnership with local and regional institutions concerned with decision-making.
  - Encouraging faculty staff members to international publication of their scientific research and develop their scientific research capabilities by providing more opportunities to attend international scientific conferences.
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### Standard 6: Learning Resources, Facilities, and Equipment

<b>Strength</b>	: <ul style="list-style-type: none"> <li>– Najran University websites are attractive.</li> <li>– The use of free resources on the internet is applied and encouraged.</li> <li>– Access to library resources is easy.</li> <li>– Many digital books and scientific databases are available.</li> <li>– Access to digital learning resources is easy.</li> <li>– Almost enough amount of book titles and copies are installed in Najran University library.</li> </ul>
<b>Weaknesses</b>	: 85% of students expressed their satisfaction of beneficiaries with the learning resources in the university, while the target value is 90%.
<b>KPIs Close Loop</b>	: KPI-P-17
<b>KPIs Close Loop in Progress</b>	: None
<b>Recommendations</b>	: <ul style="list-style-type: none"> <li>– Keep continuous support and maintenance of Najran University websites.</li> <li>– Improve copying and printing facilities.</li> <li>– Train students on using digital resources effectively.</li> <li>– Keep subscription renewal to all necessary databases to guarantee continuity of service.</li> <li>– Install more books to reach the standard ratio.</li> </ul>

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## B. KPIs of Vision 2030

KPI Code #	Key Performance Indicator	KPI Target Benchmark	KPI Actual Benchmark 1439/1440 H	KPI Internal Benchmark Civil Engineering 1439/1440 H	KPI External Benchmark 1439/1440 H	KPI New Target Benchmark	Remarks
KPI-V-01	Ratio of Saudi teaching staff in the program.	50%	28%	NA	NA	60%	More than 14 students are currently pursuing their postgraduate study outside the kingdom
KPI-V-02	Number of published research articles	15 (At least one article for every staff member)	18	NA	NA	15 (At least one article for every staff member)	The target is achieved and maintain or increase the number of published articles give more attention to the quality of the contracted faculty in the future

### Analysis of Vision 2030 KPIs and Benchmarks

#### Strength

- : – The total number of published research articles for all staff members is 18, which is above the target 15.
- The department uses a variety of styles to encourage joint scientific research and to participate in research projects.
- The presence of researchers in the department and the college from many countries of the world.

#### Weaknesses

- : The ratio of Saudi teaching staff in program is 28% below the target value of 50%.

#### KPIs Close Loop

- : KPI-V-02

#### KPIs Close Loop in Progress

- : KPI-V-01

#### Recommendations

- : – All students who are enrolled in further study (postgraduate) should be continuously followed up and supported by the department as well as urged them to complete their studies with minimal period.
- Linking scientific research to the needs of society through partnership with local and regional institutions concerned with decision-making.
- Encouraging faculty staff members to international publication of their scientific research and develop their scientific research capabilities by providing more opportunities to attend international scientific conferences.

### C. KPIs of Ministry of Education

KPI Code #	Key Performance Indicator	KPI Target Benchmark	KPI Actual Benchmark 1439/1440 H	KPI Internal Benchmark Civil Engineering 1439/1440 H	KPI External Benchmark 1439/1440 H	KPI New Target Benchmark	Remarks
KPI-ME-01	NA	NA	NA	NA	NA	NA	NA
KPI-ME-02	NA	NA	NA	NA	NA	NA	NA

#### Analysis of Ministry of Education KPIs and Benchmarks

<b>Strength</b>	:
<b>Weaknesses</b>	:
<b>KPIs Close Loop</b>	:
<b>KPIs Close Loop in Progress</b>	:
<b>Recommendations</b>	:

#### D. KPIs of Najran University

KPI Code #	Key Performance Indicator	KPI Target Benchmark	KPI Actual Benchmark 1439/1440 H	KPI Internal Benchmark Civil Engineering 1439/1440 H	KPI External Benchmark 1439/1440 H	KPI New Target Benchmark	Remarks
KPI-NU-01	Proportion of courses in which student evaluations were conducted during the year.	80%	100%	NA	NA	NA	The target is achieved as the evaluation is compulsory for all courses

#### Analysis of Najran University KPIs and Benchmarks

<b>Strength</b>	: – The proportion of courses in which student evaluations were conducted during the year is 100%, which is above the target value of 80%. – All courses were evaluated, as it is compulsory through online course evaluations.
<b>Weaknesses</b>	: None
<b>KPIs Close Loop</b>	: KPI-NU-01
<b>KPIs Close Loop in Progress</b>	: None
<b>Recommendations</b>	: Increase number of student's enrolment.

## 2. Closing the Quality Loop

KPIs Performance (status of quality close loop)								
No.	KPI Code #	Key Performance Indicator	Closed (100%)	Closed and passing the target	Closed and achieved the target	Not closed (less than the target)	Not closed (achieved with the same/less value of the last year)	Remarks
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives		√				
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program		√				
3	KPI-P-03	Students' evaluation of the quality of the courses		√				
4	KPI-P-04	Completion rate	√					
5	KPI-P-05	First-year students retention rate			√			
6	KPI-P-06	Students' performance in the professional and/or national examinations	-	-	-	-	-	
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs c) employed d) enrolled in further study				√	√	
8	KPI-P-08	Average number of students in the class	√					
9	KPI-P-09	Employers' evaluation of the program graduate's proficiency			√			
10	KPI-P-10	Students' satisfaction with the offered services				√	√	
11	KPI-P-11	Ratio of students to teaching staff	√					
12	KPI-P-12	Percentage of teaching staff distribution			√			
13	KPI-P-13	Proportion of teaching staff leaving the program	√					
14	KPI-P-14	Percentage of publications of faculty members				√		
15	KPI-P-15	Rate of published research per faculty member		√				

KPIs Performance (status of quality close loop)								
No.	KPI Code #	Key Performance Indicator	Closed (100%)	Closed and passing the target	Closed and achieved the target	Not closed (less than the target)	Not closed (achieved with the same/less value of the last year)	Remarks
16	KPI-P-16	Citations rate in refereed journals per faculty member	√					
17	KPI-V-01	Ratio of Saudi teaching staff in the program.				√		
18	KPI-V-02	Number of published research articles		√				
19	KPI-P-17	Satisfaction of beneficiaries with the learning resources		√				
20	KPI-NU-01	Proportion of courses in which student evaluations were conducted during the year.	√					

### Closing the Quality Loop Analysis

Based on the table above, some problems appeared in closing the quality loop at the Electrical Engineering Program as follows:

No.	KPI Code #	Status of closing the quality loop	Remarks and Recommendations for Improvement
1.	KPI-P-07	In progress	<ul style="list-style-type: none"> <li>The result shows that 18% of the graduates were employed. This value is less than the target benchmark of 30%. However, in order to improve this value, local employers should be invited to participate in the program activities to introduce the graduate students the vacancies available in the private sectors.</li> <li>9% of the graduates were enrolment in postgraduate programs out of 10%, which is close to the target value.</li> </ul>
2.	KPI-P-10	In progress	<ul style="list-style-type: none"> <li>The satisfaction rate is less than the target benchmark. It is 38% for academic advising and 11% for career advising, which is much less compared to the target value of 60%. Also, these measured values are much less than the ones measured by the internal and external benchmarks.</li> <li>Improvement to the offered services is needed to get higher satisfaction rate.</li> </ul>

			<ul style="list-style-type: none"> <li>Students' services and activities are planned and regularly monitored. However, collecting feedback from students and formulating action plans based on this feedback is still below the ambition.</li> </ul>
3.	KPI-P-14	In progress	<ul style="list-style-type: none"> <li>The percentage of published articles for all faculty members is 56% compared to the target value of 80%.</li> <li>The result is satisfactory. This due to the presence of a university research funding unit which supports the research projects in the university in competitively and clear manner.</li> <li>More highlight is required on increasing the public and institutional awareness about the importance of scientific research on sustainable development.</li> </ul>
4.	KPI-V-01	In progress	<ul style="list-style-type: none"> <li>The ratio of Saudi teaching staff in the program is 28% below the target value of 50%.</li> <li>The department has more than 14 students who are currently pursuing their postgraduate study outside the kingdom.</li> <li>All students are continuously followed up and supported by the department as well as urged them to complete their studies with minimal period.</li> </ul>