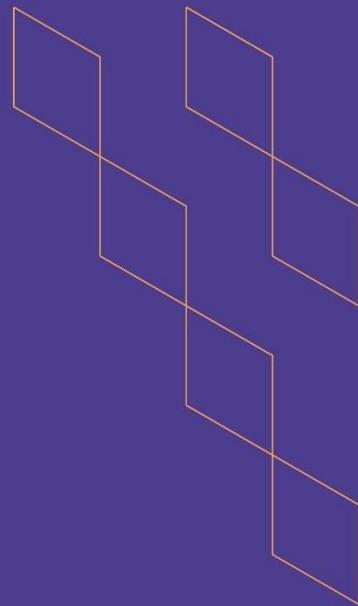




2023  
DP-101

# Program Key Performance Indicators — (Bachelor)



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





## Introduction

Performance indicators are important tools for assessing the quality of Academic Programs and monitoring their performance. They contribute to continuous development processes and decision-making support.

The National Center for Academic Accreditation and Evaluation has identified 11 key performance indicators at the program level. All of which are in line with the Program Accreditation Standards version 2022. These indicators are the minimum to be periodically measured, and the academic program can use additional performance indicators if it believes they are necessary to ensure the quality of the program.

It is expected that the academic program measures the key performance indicators with benchmarking using the appropriate tools, such as (Surveys, Statistical data, etc.) according to the nature and objective of each indicator, as well as determining the following levels for each indicator:

- Actual performance
- Targeted performance level
- Internal reference (Internal benchmark)
- External reference (External benchmark)
- New target performance level

A report describing and analyzing the results of each indicator (including performance changes and comparisons according to sites and gender) is expected with precise and objective identification of strengths and aspects that need improvement.



## Program Key Performance Indicators (BACHELOR DEGREE in Industrial Engineering) Last 3 Years

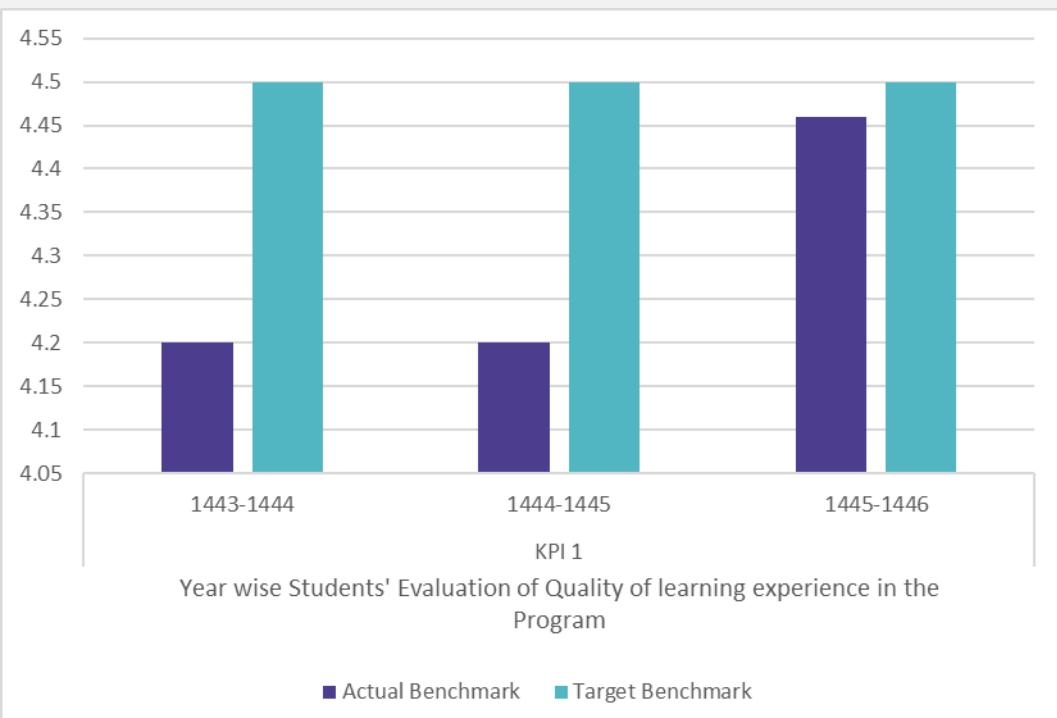
Standard	Code	Key Performance Indicators	1443-1444	1444-1445	1445-46
-2- Teaching and Learning	KPI-P-01	Students' Evaluation of Quality of learning experience in the Program	4.2	4.2	4.46
	KPI-P-02	Students' evaluation of the quality of the courses	4.2	4.35	4.63
	KPI-P-03	Completion rate	92%	95%	94%
	KPI-P-04	First-year students retention rate	92%	94%	95%
	KPI-P-05	Students' performance in the professional and/or national examinations	92%	96%	96%
	KPI-P-06	Graduates' employability and enrolment in postgraduate programs	59%	84%	88%
	KPI-P-07	Employers' evaluation of the program graduates proficiency	4.3	4.4	4.37





Standard	Code	Key Performance Indicators	1443-1444	1444-1445	1445-1446
-4- Teaching Staff	KPI-P-8	Ratio of students to teaching staff	30:1	27:1	25:1
	KPI-P-9	Percentage of publications of faculty members	80%	62%	87.5%
	KPI-P-10	Rate of published research per faculty member	5.5	5.28	5.25
	KPI-P-11	Citations rate in refereed journals per faculty member	9.7	3.4	4.81



KPI-P-01 Students' Evaluation of quality of learning experience in the program																
Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark**	New Target Benchmark												
4.46	4.5	4.4	4.3	4.5												
<b>Analysis (list strengths and recommendations):</b>																
<p>Actual values were lower than target values and external benchmarks, but higher than internal benchmarks. Observing the KPI-1 trend for last 3 years (1443 to 1446), the results have increased slightly, however, the target has not yet been reached. This graph also shows that there is continuously improving the quality of the learning experience.</p>  <table border="1"> <caption>Data for Year wise Students' Evaluation of Quality of learning experience in the Program</caption> <thead> <tr> <th>Year</th> <th>Actual Benchmark</th> <th>Target Benchmark</th> </tr> </thead> <tbody> <tr> <td>1443-1444</td> <td>4.20</td> <td>4.50</td> </tr> <tr> <td>1444-1445</td> <td>4.20</td> <td>4.50</td> </tr> <tr> <td>1445-1446</td> <td>4.45</td> <td>4.50</td> </tr> </tbody> </table>					Year	Actual Benchmark	Target Benchmark	1443-1444	4.20	4.50	1444-1445	4.20	4.50	1445-1446	4.45	4.50
Year	Actual Benchmark	Target Benchmark														
1443-1444	4.20	4.50														
1444-1445	4.20	4.50														
1445-1446	4.45	4.50														
<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>The program has a good level of teaching and learning.</li> <li>The program has good quality of educational services provided to students of the program, student counselling and support, good infrastructure</li> <li>The target benchmark is high</li> </ul> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>It is recommended to continue the efforts put forward by the faculty members and department's administration to make students' learning experience more enriching and productive.</li> <li>Be sure that student Evaluation of Learning and Teaching Questionnaire should be comprised of four factors: assessment and feedback; course organization and presentation; student self-evaluation; and students' level of engagement.</li> <li>Be sure that teaching evaluation must be conducted based on two related key assumptions. Primarily, teachers are seen as having an influence on student learning. The second one has to do with the students' capacity to provide teachers with feedback to be used for teaching improvement.</li> </ul>																





### KPI-P-02 Students' evaluation of the quality of the courses

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark**	New Target Benchmark
4.63	4.5	4.3	3.85	4.5

#### Analysis (list strengths and recommendations):

Actual values were higher than the target values, internal benchmarks, and the external benchmarks. Observing the KPI-2 trend for last 3 years (1443 to 1446), the results have increased slightly and the target has been achieved. This graph also shows that there is continuously improving the quality of the students' evaluation of the quality of the courses.



#### Strength

- There is an improvement in the evaluation of the quality of course by students.
- The target benchmark is high
- Effective Course Syllabus with defined objectives and learning outcomes
- Students' ratings of courses are incorporated into the decision-making process starting from course instructors responding to ratings in course reports to Plan and Curriculum Committee giving consideration to courses that have problems in students' ratings.

#### Recommendations:

- To improve the quality of courses
- To have a meeting with the students and discuss priorities of improvements of the course
- To invite the faculty members responsible for courses with low evaluation by the students and see how to improve the quality of their course.
- Continuing with the ongoing process where students' feedback is sought, problems are identified, corrective action is started and effectiveness is reassessed through further feedback
- Students need to be oriented towards the implications and important of the ratings they assign to the courses so that they do it with greater care with the intention of providing constructive feedback.
- Teaching strategies need to improve.



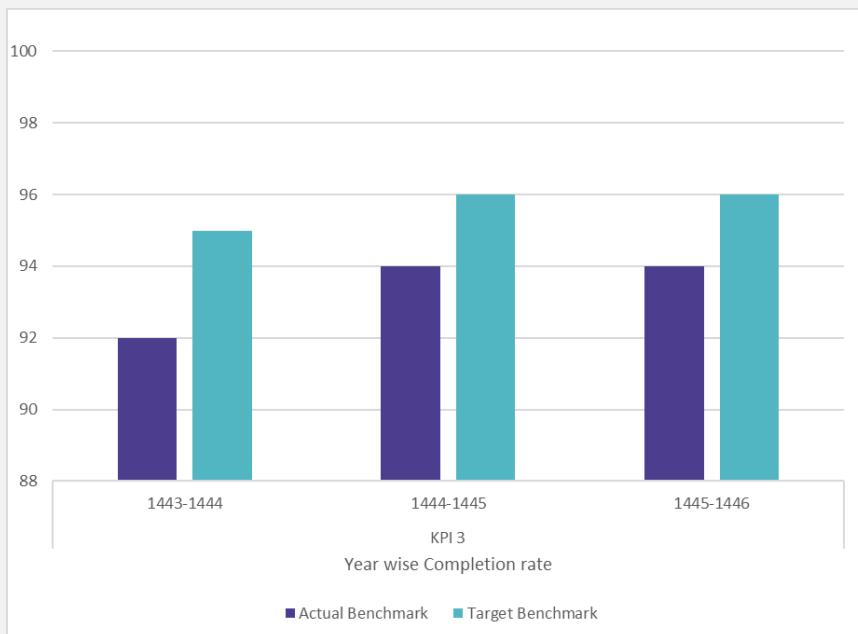


KPI-P-03 Completion rate

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark** -	New Target Benchmark
94%	96%	90%	95%	96%

**Analysis (list strengths and recommendations):**

*Actual values were lower than target values, but more than the internal benchmarks, and lower than the external benchmarks. Observing the KPI-3 trend for last 3 years (1443 to 1446), the completion rate of bachelor program has increased slightly, however the target has not yet been reached. This value reflects that the students and faculty members are making big effort in the supervision of the bachelor students. The students meet regularly their academic advisors and the faculty members during office hours.*



**Strength**

- The students are totally satisfied with the quality of the scientific supervision and quality of learning.

**Recommendations:**

- More hard work is required by the students and faculty members also.
- More emphasis along with assignments, quizzes and activities should be given to weak students.

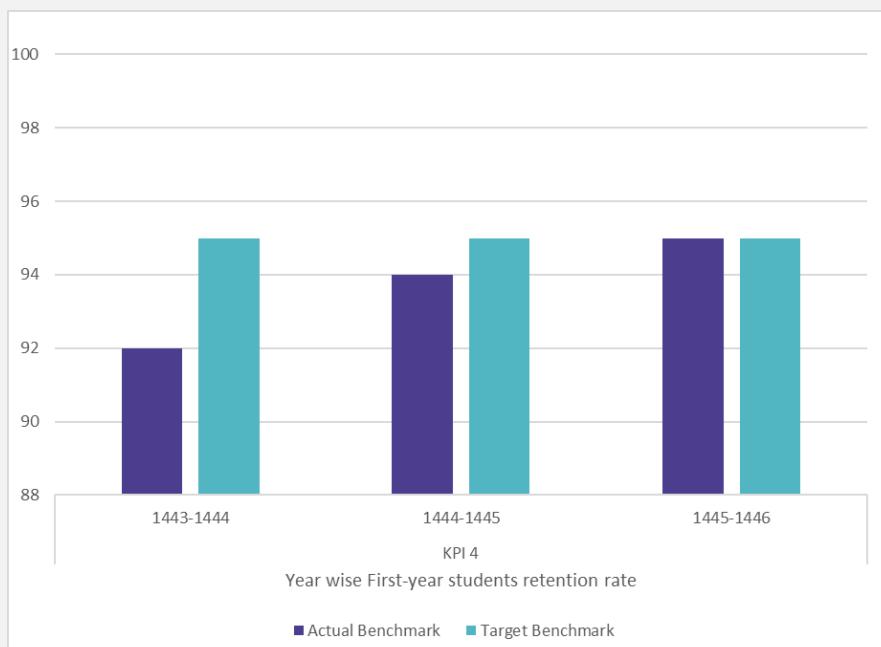


KPI-P-04 First-year students retention rate

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark** -	New Target Benchmark
95%	95%	90%	95%	95%

**Analysis (list strengths and recommendations):**

*Actual values were same than target values and external benchmark, but more than internal benchmarks. Observing the KPI-4 trend for last 3 years (1443 to 1446), the results have increased slightly, and the target has been achieved. This value reflects that the faculty members are making big effort by giving more focus to the students while teaching in the lecture to increase the retention ratio. Experienced faculty were assigned to deal with and motivate the first-year students. The students meet regularly their supervisors during the hours of supervision and during the office hours.*



**Strength**

- Department have well qualified experienced teacher which engage and motivate them.
- Department have world class infrastructure, laboratory, research and innovation cell which helps them to foster their ideas into reality.

**Recommendations:**

- Engage students in laboratories.
- Motivate students to attend the seminar and regularly plan industrial visit.

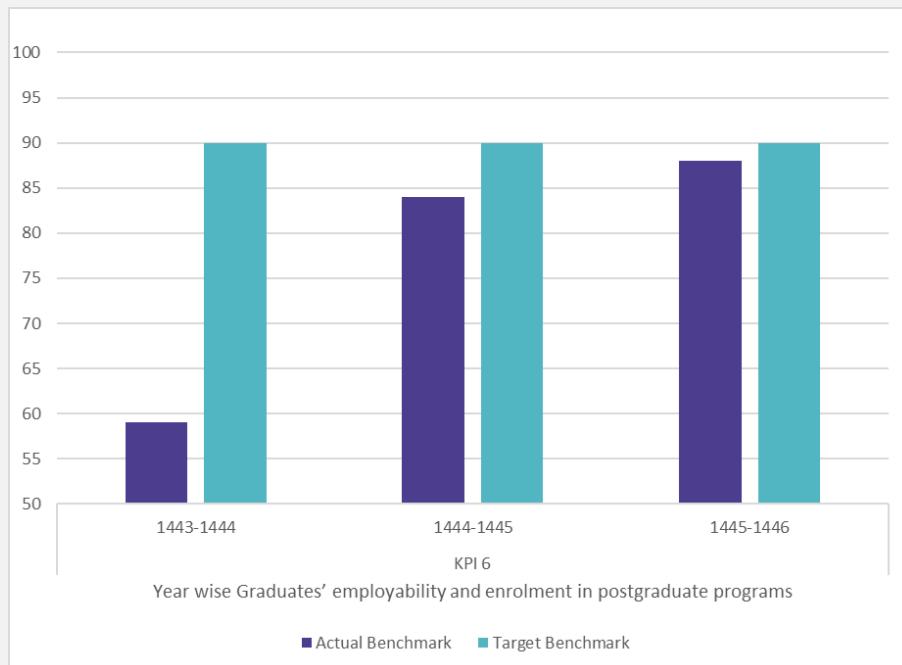


KPI-P-05 Students' performance in the professional and/or national examinations																
Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark**	New Target Benchmark												
96%	95%	95%	-	95%												
<b>Analysis (list strengths and recommendations):</b>																
<p><i>Actual values were higher than target values and internal benchmarks and external benchmarks. Regarding the KPI-5 trend for last 3 years (1443 to 1446), the results showed that students had started actively in national examination from 1443-44 onwards, therefore; analysis is only done for 1443-44 onwards. In addition, this value reflects that the faculty members are making big effort in the supervision of the students, motivating them to appear for national level exams.</i></p>																
<table border="1"> <caption>Year wise Students' performance in the professional and/or national examinations</caption> <thead> <tr> <th>Year</th> <th>Actual Benchmark</th> <th>Target Benchmark</th> </tr> </thead> <tbody> <tr> <td>1443-1444</td> <td>88</td> <td>95</td> </tr> <tr> <td>1444-1445</td> <td>96</td> <td>95</td> </tr> <tr> <td>1445-1446</td> <td>96</td> <td>95</td> </tr> </tbody> </table>					Year	Actual Benchmark	Target Benchmark	1443-1444	88	95	1444-1445	96	95	1445-1446	96	95
Year	Actual Benchmark	Target Benchmark														
1443-1444	88	95														
1444-1445	96	95														
1445-1446	96	95														
<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>• Department have well qualified experienced teacher which engage and motivate them.</li> <li>• Department have world class infrastructure, laboratory, research and innovation cell which helps them to foster their ideas into reality.</li> </ul> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Engage students in laboratories, motivate them to solve more complex numerical problems to increase analytical approach.</li> <li>• Motivate students to attend seminars and conferences.</li> </ul>																

KPI-P-06 Graduates' employability and enrolment in postgraduate programs				
Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark**	New Target Benchmark
88%	90%	90%	- 90%	90%

**Analysis (list strengths and recommendations):**

*Actual values were lower than target values and the internal benchmarks, and lower than the external benchmarks. Observing the KPI-6 trend for last 3 years (1443 to 1446), the results have shown increasing trend, however, the target has not yet been reached. This value reflects that the faculty members must make a big effort in the supervision of the students.*



**Strength**

- The students are totally satisfied with the quality of the scientific supervision.
- The students are graduating at a minimum of time.
- High quality of education
- Serious students

**Recommendations:**

- Give incentives/certificate of appreciation for the best scientific supervisor
- Continuous cooperation between students, academic advisors, and course professors to maintain the duration of student's graduation as minimum as possible.
- Keep the clarity of graduation requirements and ease of achievement.
- Continuous follow-up of students by academic advisors, faculty, department, and college Academic Advising Unit.
- To keep improving the Quality of educational services and Quality of student counselling and support.



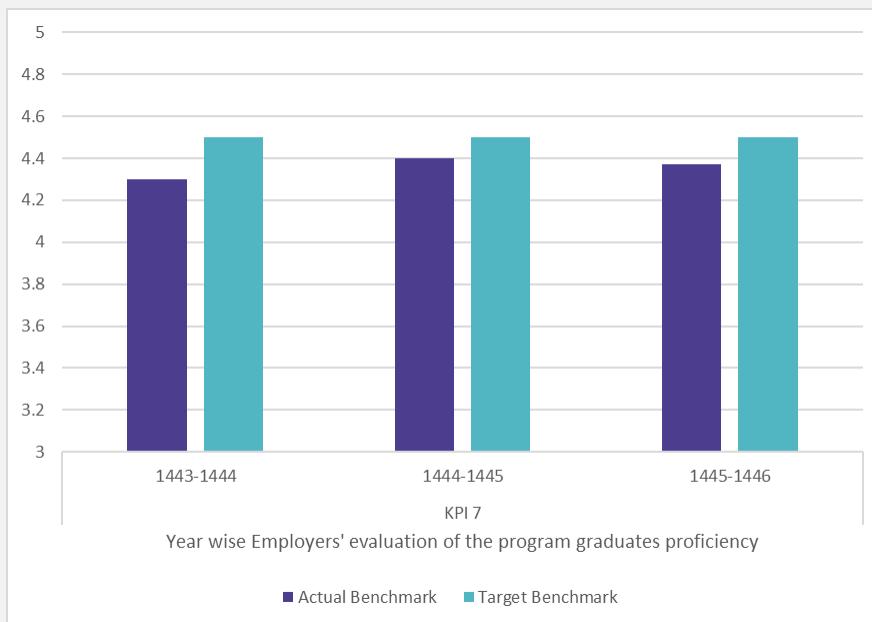


KPI-P-07 Employers' evaluation of the program graduates proficiency

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark**	New Target Benchmark
4.37	4.5	4.0	- 4.0	4.5

**Analysis (list strengths and recommendations):**

*Actual values were lower than target values, but more than the internal benchmarks, and higher than the external benchmarks. Observing the KPI-7 trend for last 3 years (1443 to 1446), the results have increased slightly, however the target has not yet been reached. This value reflects that the faculty members are making big effort in the supervision of the master students.*



**Strength**

- The program graduates' proficiency is highly appreciated by the employers.
- The knowledge, skills and values acquired by students are at a high level
- Surveying the opinions of employers to assess the efficiency of the program graduates periodically (annually).
- The relationship of the graduate of King Khalid University in the Bachelor of Industrial Engineering program with his colleagues at work is good (consistent with the environment).
- A graduate from industrial engineering program is motivated to work, develop and self-learn continuously in his field of work.
- A graduate of King Khalid University accepts assignment of additional work.

**Recommendations:**

- Keep in touch with market needs to provide highly qualified graduates
- Continuous evaluation of the program graduates' proficiency by employers and get their feedback to improve the program
- Continuous update of alumni databases.
- Develop a variety of means to communicate with graduates and employers.



KPI-P-08 Ratio of students to teaching staff				
Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark* *	New Target Benchmark
25:1	25:1	25:1	15:1	25:1

**Analysis (list strengths and recommendations):**

*The actual indicator for ratio of students to teaching staff is same as the target benchmark, and the external benchmark. This ratio is improving as shown by the graph for last three years. The university is recruiting faculty members through out the world to support the department and reduce the students teacher ratio.*



**Strength**

- With respect to the number of students the quality of teaching and supervising is in a high level.
- The actual situation increases student-teacher interaction and allows teachers to respond to students' needs.
- Adequate Capacity of Class room with sufficient facilities

**Recommendations:**

- It is recommended to decrease the ratio to 15 students per faculty member

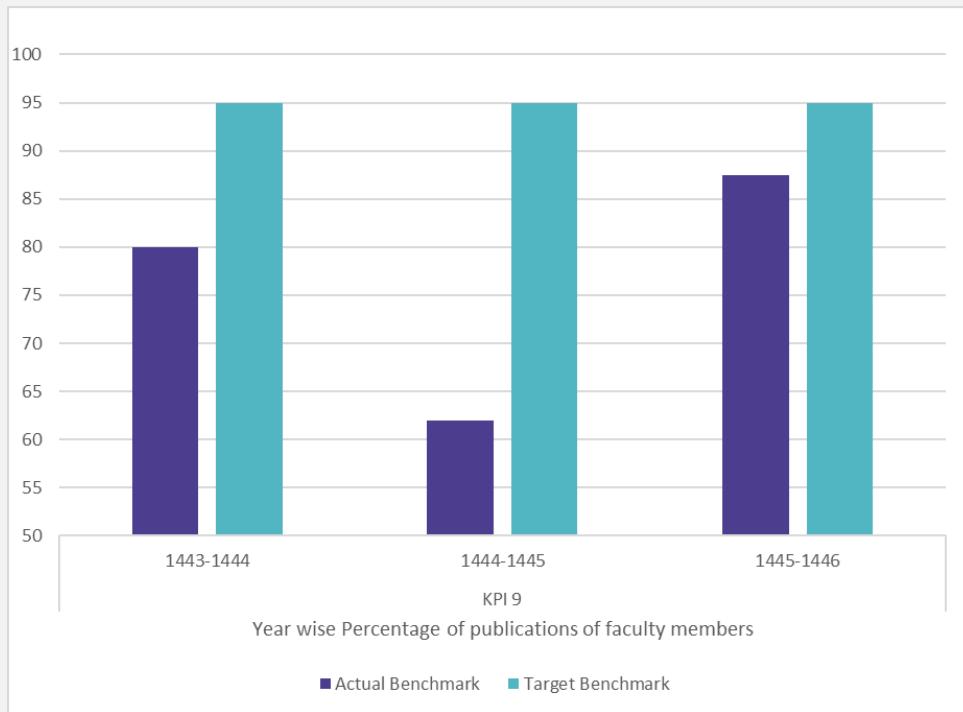


KPI-P-09 Percentage of publications of faculty members

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark **	New Target Benchmark
87.5%	95%	90%	90%	95%

**Analysis (list strengths and recommendations):**

*The actual value is less than the target benchmark, the external benchmark and the internal benchmark. By observing the KPI-9 trend of last 3 years (1443 to 1446), there is an increasing participation of faculty members in terms of research publication per year. The university is also providing grants to improve and motivate the faculty members to publish more papers in ISI Journals.*



**Strength**

- All faculty members publish at least 3 papers per year

**Recommendations:**

- The program should find a better procedure to encourage the participation in conferences
- Papers published should focus more on recent trends in industrial engineering with participation from students also.





**KPI-P-10 Rate of published research per faculty member**

	Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark **	New Target Benchmark
ISI Journal papers	5.25:1	4:1	2:1	4.5:1	5:1

**Analysis (list strengths and recommendations):**

*The actual value is higher than the target, and the internal and external benchmark. By observing the KPI-10 trend of last 3 years (1443 to 1446), there is an increasing in the average number of ISI publications per each faculty members. This is due to the good support provided by the deanship of scientific research. In fact, all faculty members are involved in different types of funded projects in which international cooperation's has been created.*



**Strength**

- All faculty members are publishing high number of ISI journals.
- All faculty members are involved in different types of funded projects in which international cooperation has been created.

**Recommendations:**

- The program should find a better procedure to encourage the participation in conferences
- Papers published should focus more on recent trends in industrial engineering.
- International cooperation should be officially signed at the department/college levels not only through research projects as external Co-Principal Investigator or consultant.



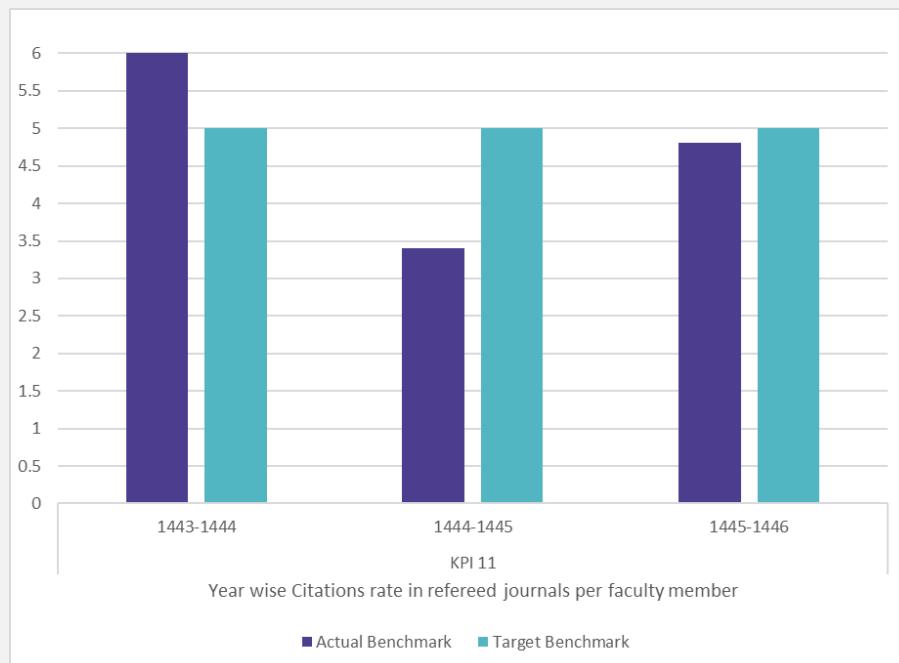


KPI-P-11 Citations rate in refereed journals per faculty member

Actual Benchmark	Target Benchmark	Internal Benchmark*	External Benchmark* *	New Target Benchmark
4.82	5	5	-	5

**Analysis (list strengths and recommendations):**

*The actual value is lower than the target and the internal and external benchmark. By observing the KPI-11 trend of last 3 years (1443 to 1446), there is an increasing in the citation rate publications each faculty member in last three years (Except 1444-45). The citation rate for 1445 is lower, may be due to the reason it was calculated at the start of the year. Therefore, it may increase after end of the year. In fact, all faculty members are involved in different types of funded projects and produce with their research team's high number of papers and thus number of citations increases automatically.*



**Strength**

- All faculty members are publishing high number of ISI journals.
- All faculty members are involved in different types of funded projects in which international cooperation has been created.

**Recommendations:**

- Papers published should focus more on recent trends in industrial engineering.
- International cooperation should be officially signed at the department/college levels not only through research projects as external Co-Principal Investigator or consultant.
- Faculty members should focus on review papers to increase citations and publish more in Q1, Q2 journals.



## G. Specification Approval

COUNCIL /COMMITTEE	Reviewed by the Department Curriculum Committee. Approved by the Department Quality Committee
REFERENCE NO.	9-6-47
DATE	25/06/1447