



Kingdom of Saudi Arabia



وزارة التعليم
Ministry of Education



جامعة نجران
NAJRAN UNIVERSITY

Vice Rectorship of Higher Studies and
Scientific Research

Deanship of Scientific Research

The Strategic Plan of Scientific Research

1437 - 1439 AH

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Address of the Vice Rector of Higher Studies and Scientific Research & The General Supervisor of the Project of Preparing the Strategic Plan of Scientific Research:

Although it has been recently established, Najran University has started its activities based on strategic planning. One of the main components and goals of this plan was paying more attention to scientific research. Then, the Vice Rectorship for Higher Studies and Scientific Research highlighted the importance of setting an integrated strategic plan for the NU scientific research system to cope with the radical change in the role of Higher Education and contribute to achieving the national objectives for future prosperity. Because of this, the plan was developed based mainly on the University strategic plan and the results of analyzing the university's internal and external environment. In addition, the strategic plan of scientific research in Najran University took into account all aspects of the scientific research policies in Gulf Cooperation Council (GCC), the National plan for Science, Technology and Innovation, as well as research excellence centers in Saudi universities, in order to develop a plan that is consistent with the radical change witnessed by the world in the transformation from traditional economy to knowledge-based economy. Moreover, the plan is consistent with seeking to continuous development of research projects based on solving the community problems, expanding cooperation with partners locally, regionally and globally in the domain of research and development, and boosting distinctive research projects to win National or



International Excellence Prizes, as well as increasing the number of research papers published in prestigious international journals. In conclusion, I thank all university Faculty staff members and researchers teams who have worked hard and contributed to setting this plan in its distinctive image.

Vice Rector for Higher Studies and Scientific Research

Prof. Mohammed Bin Sultan Al Aasiri

Adress of the Dean of Deanship of Scientific Research & The Executive Director of the Project of Preparing Strategic Plan of Scientific Research:

The vision of Najran University for Scientific Research is to be "A leading research system that contributes to the enrichment of science and knowledge community". While the statement of its mission is "Production of high quality applied research that contribute in achieving the National Development Plans and developing education process, through providing a stimulating research environment, developing innovation and creativity skills, and expanding research partnerships, with tendency towards knowledge-based economy". The strategic trends of the plan are to create a stimulating research environment, develop the field of creativity and innovation, and to establish research partnerships towards a knowledge-based economy. As for the strategic goals, they include developing scientific esearch facilities and equipment, providing information resources and databases to serve the purposes of scientific research, developing faculty members' research skills and strengthening funding and stimulation systems for the distinguished scientific production, producing innovative applied scientific research, sponsoring and supporting innovators, establishing research partnerships at both the national and global levels, and finally providing outstanding support for research papers with economic returns and those associated with industry. Finally, we thank the Rector, College Deans, Vice-Rectors for their support and encouragement for the universityscientific research. We also thank College Deans , Male and Female Vice Deans, Vice Deans of



Deanships and all university faculty members for their contribution to setting this plan and proceeding to apply and implement it.

Dr. Mohammed bin Ali Alshehry
Dean of the Deanship of Scientific Research

Introduction

Najran University aims to provide scientific and applied research for the development of community, the support of the kingdom's institutions and the private sector by doing research, and offering suggestions for development and consultation about updating the existing Technologies that are appropriate for the Kingdom environment. Therefore, the university gives all due attention to the process of scientific research as it is considered one of the main tasks and bases undertaken by the university, and one of the indicators that measures its development.

Because the university is the center of scientific research in the community, this highlights the great responsibility placed on it in the development and the comprehensive progress in scientific research system in order to support sustainable development and improve the resources of information according to standard criteria, in addition to providing the requirements of researchers according to their specializations to raise the standard of research at the university.

The use of quantitative and qualitative analysis is used in the conduct of internal and external environmental analysis to identify the strengths, weaknesses, opportunities and threats. A four-matrix analysis (SWOT Analysis) was conducted and in its light the strategic and operational goals of the scientific research at Najran University were identified.



First: The Environmental Analysis of the Scientific Research System at Najran University (SWOT Analysis):

1. The methodology of the environmental analysis (SWOT Analysis) procedures for Scientific Research at Najran University:

- An environmental analysis team was formed, the work of the committee has been distributed as follows:
 - Collecting data, statistics and documents related to all internal and external environmental factors that affect Scientific Research and collecting the activities relevant to Najran University.
 - Conducting benchmarking studies that included the study of all the data and documents related directly or indirectly to the aspects and topics of scientific research and the activities relevant to Najran University.
- Analysing the internal environment factors affecting scientific research and the activities related to Najran University.
- Analysing the external environment factors affecting scientific research and the activities related to Najran University.
 - Holding meetings with the members of the environmental analysis team and its committees to present and discuss the results of the environmental analysis that have been achieved.
 - Preparing a report on the internal and external environmental analysis which includes the strengths, weaknesses, opportunities and threats for scientific research and the activities relevant to Najran University.

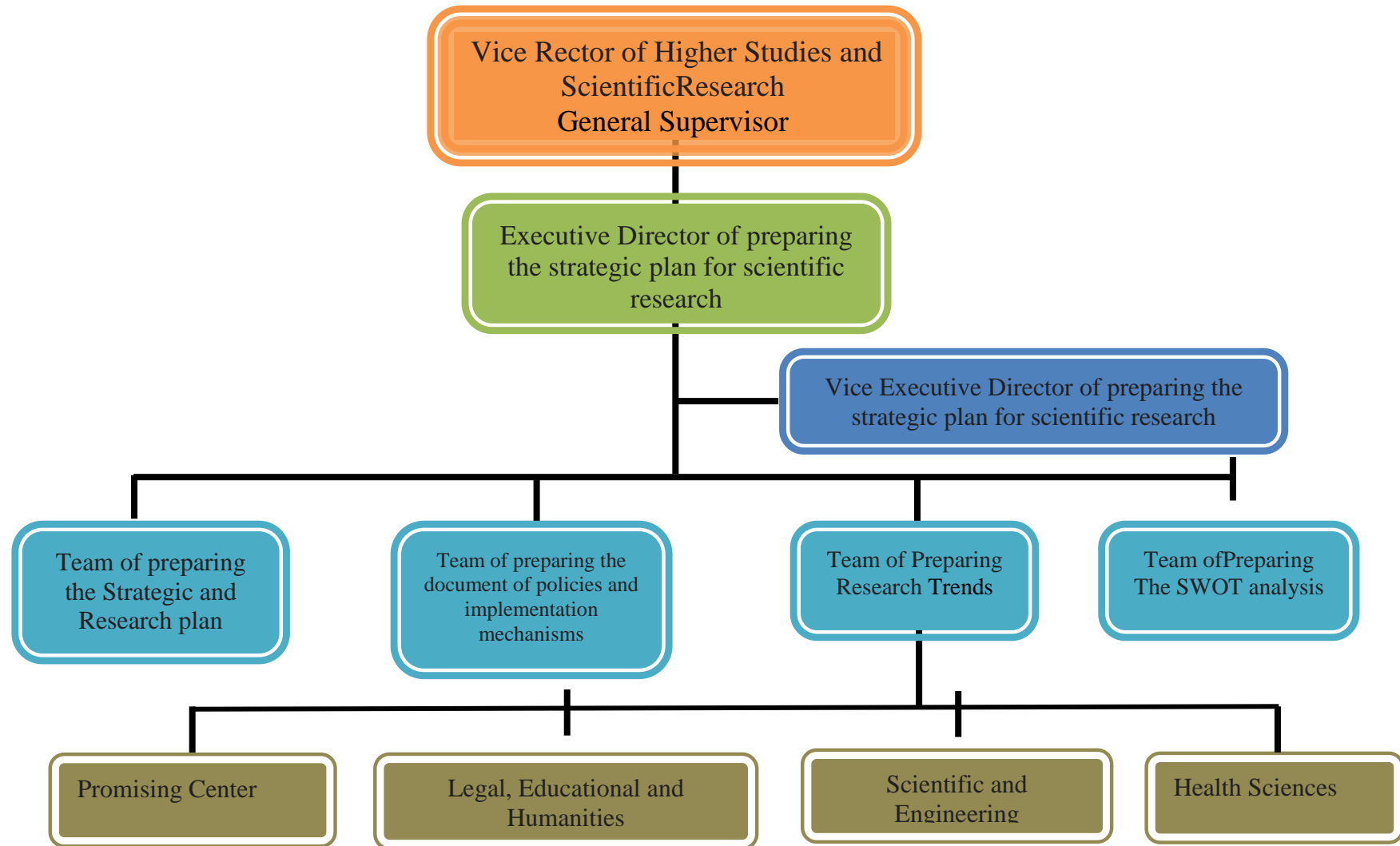


Figure (1): The Organizational Structure of the team of preparing Strategic Plan of Scientific Research at Najran University.

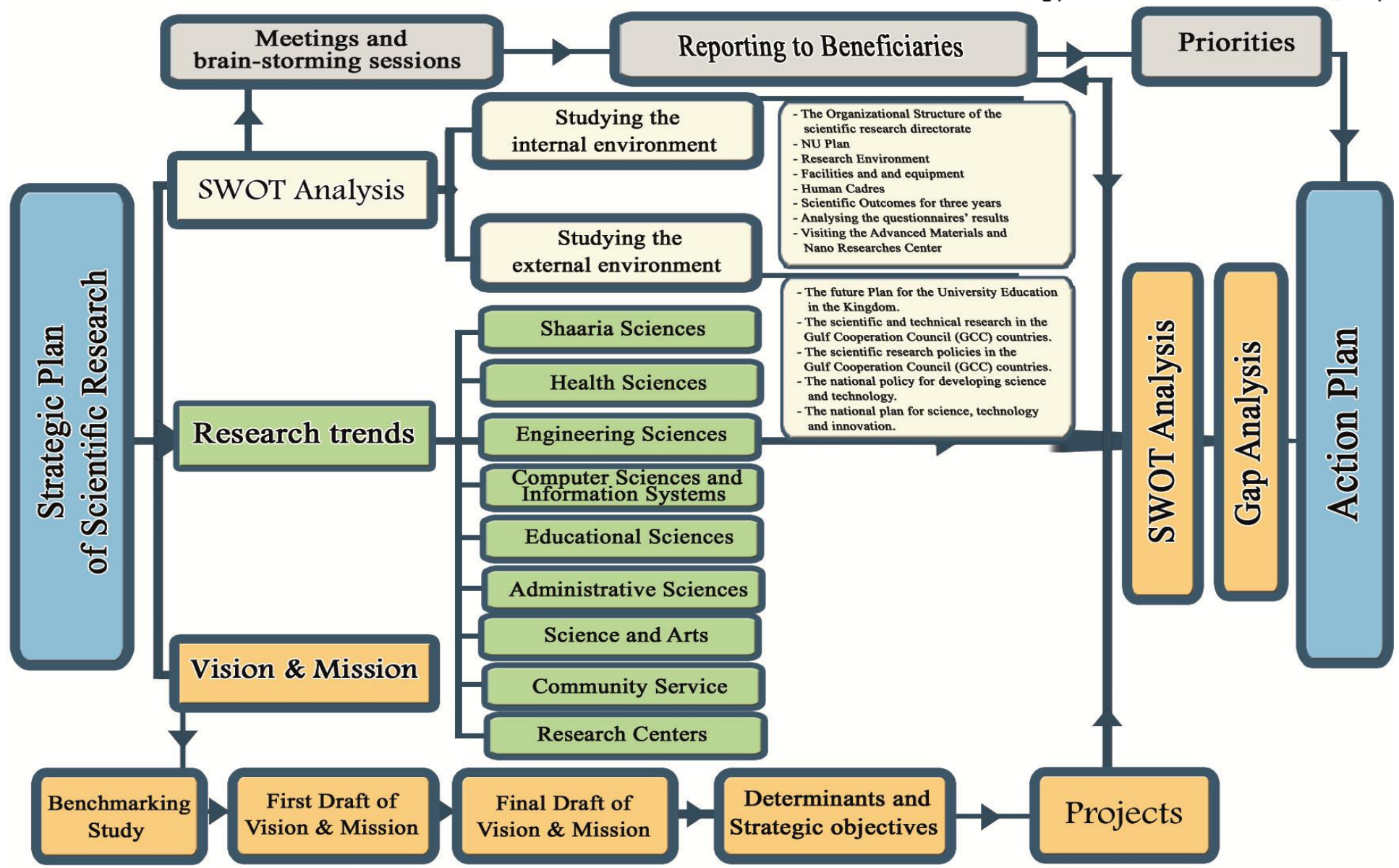


Figure (2) An illustration of the work methodology for preparing the Strategic Plan of Scientific Research at Najran University.



2. Benchmarking Studies:

A. The future plan for University education in the Kingdom of Saudi Arabia (Aafaq):

The benchmarking studies it dealt with the study of the future plan for the university education in the Kingdom of Saudi Arabia (Aafaq) initiated and prepared by the Ministry of Higher Education in the form of a strategic plan for a period of twenty-five years until the year 1450 AH / 2029 AD.

One of the goals of this plan is encouraging scientific research to reach the global levels, as well as consolidating the partnership between Saudi Universities and the institutions of both public and private sectors to encourage applied research that will lead to sustainable development of the Community and to make scientific research reaches the stage of self-funding.

The Vision of Aafaq plan includes achieving comprehensive University education in Saudi Arabia, by the means of expansion, quality and differentiation, such University education that competes for international leadership, and contributes effectively in a knowledge-based community. While the Mission of Aafaq plan includes providing distinguished education, and producing innovative research papers that serve the community and contribute to the knowledge-based economy by creating astimulating environment for learning , intellectual creativity, the utmost use of Technology, and for effective national and international partnership.

The future plan of the universityeducation (Aafaq) in the Kingdom is divided into eight aspects or strategic determinants, and each strategic determinant is divided into several programs, about 40 programs.

The Aafaq programs concerning scientific research are represented as follows:

- Enhancing the Higher studies programs for the female Teacing Staff.
- Developing Higher studies programs.



- Post doctoralFellowship.
- Management of scientific research in University education.
- The Specialized research University.

All the actions taken by the University of Najran to harmonize the strategic plan for the university of Najran with the objectives of (Afaq) as well as studying the achievements made in this regard were studied, among other benchmarking studies.

B - National Plan for Science, Technology and Innovation:

Within Benchmarking studies which had been done, all aspects of the comprehensive national plan for science and Technology on the long term were studied, which contain overall strategic framework, objectives, and long-term policies of science and Technology. From this framework, programs and projects in science and technology emerged that are included in the operational plans of governmental bodied, and the following figure shows the different five years ' plans for Science and Technology and their goals:

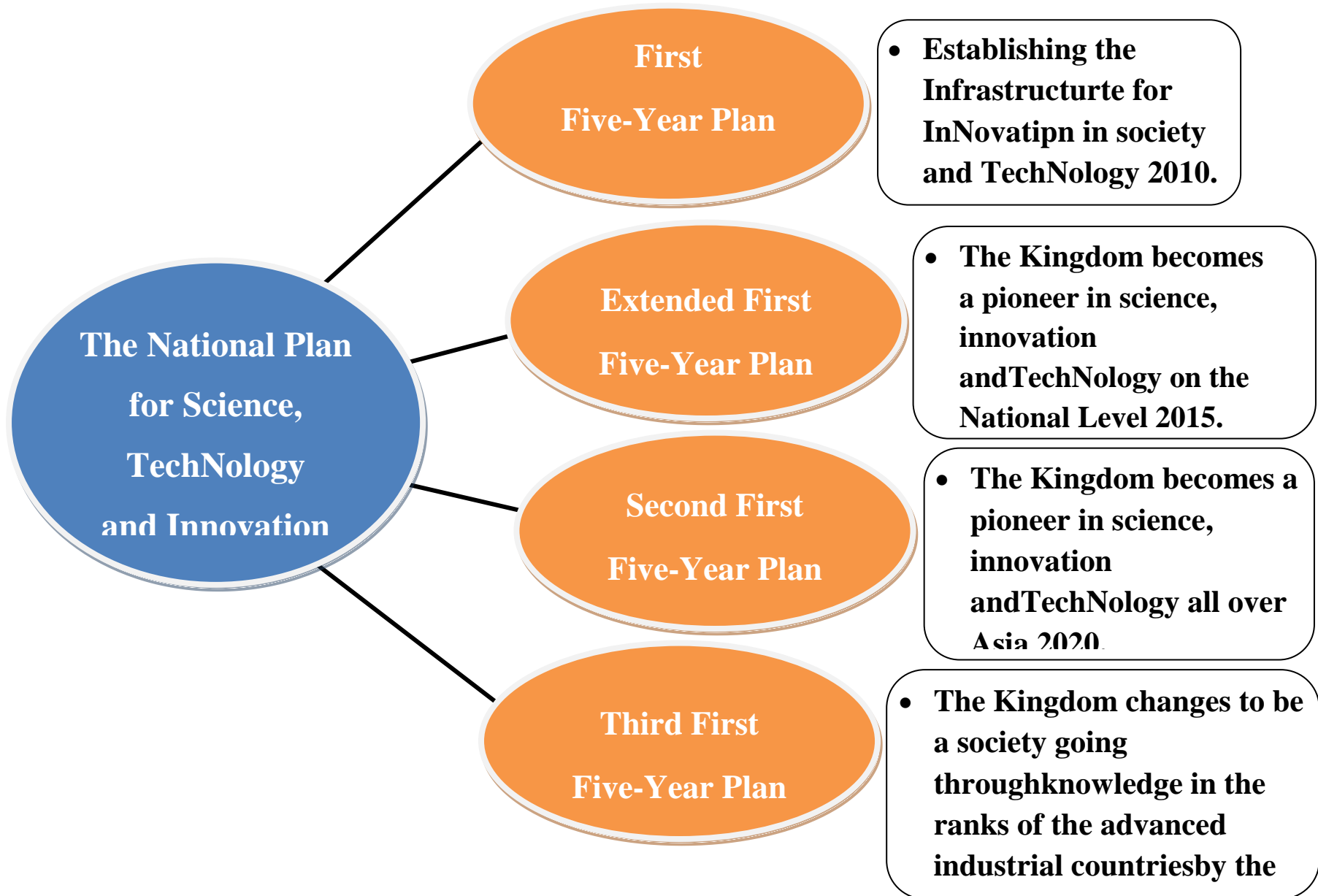


Figure (3) Five-Year Plans for Science, Technology and Innovation and their Objectives



C - Scientific and Technical Research in the Gulf Cooperation Council (GCC) Countries:

Also, the benchmarking studies dealt with the status of infrastructure for scientific research and the methods of its development in the GCC Countries over the previous years. In this regard, the conducted study ,included important elements such as: the issue of funding scientific and technical research, the importance of linking scientific research to development process, and the role of scientific and technical information in improving scientific research .The study indicated the necessity for developing general polices for scientific and technical research in the Gulf Cooperation Council (GCC) countries in order to consolidate the bonds of scientific cooperation between Universities and research centers in the Gulf Cooperation Council (GCC)countries.

D - Strategic plans for Scientific Research in some national and international Universities:

The strategic plans for scientific research in some national and international Universities were studied in order to determine the modern trends of strategic planning in the field of scientific research, and to select some universities as benchmark in this regard. These universities are the university of Dammam and King Abdul Aziz University in Saudi Arabia, Cairo University, in The Arab Republic of Egypt, the university of Maryland, in USA, and McGill University, in Canada.

3. Internal Environment Analysis:

3.1 The Organizational Structure of the University Vice-Rectorship of the Higher studies and Scientific Research:

- The Organizational Structure for the University Vice-Rectorship for Higher Studies and Scientific Research is characterized by the existence of four Supporting Deanships. Recently, everal research centers,units and specialized adminstrations in the field of scientific research and its activities were added to



the organizational structure. Some of the most important units of the organizational structure that have been recently developed in the university are the Institute of Studies and Consulting Services, Cooperation and International Agreements Unit , Languages and Translation Center and the Science and Technology Unit.

- The Deanship of Research and the Deanship of Higher Studies in addition to all research units , centers and administration are working as a consistent work team to serve and improve scientific research system at Najran University. They are committed to activate and apply the Uniform Bylaw of Scientific Research in Saudi Universities and its probable amendments (Appendix 1). The the Uniform Bylaw of Scientific Research in Saudi Universities was approved by the Ministry of Higher Education and issued by the Higher Education Council circular No. 10/2/1419 H (dated 02/06/1419 AH).
- The Vice-Rectorship of the Higher studies and scientific research, and all its Deanships and departments are working under the umbrella of a set of policies adopted by the university within the strategic plan. It should be Noted that one of these developmental projects of the plan is to set up a developed organizational structure for the Vice Rectorship for the Higher studies and Scientific Research, and its various Deanships. The following figure shows the organizational structure of scientific research Deanships.

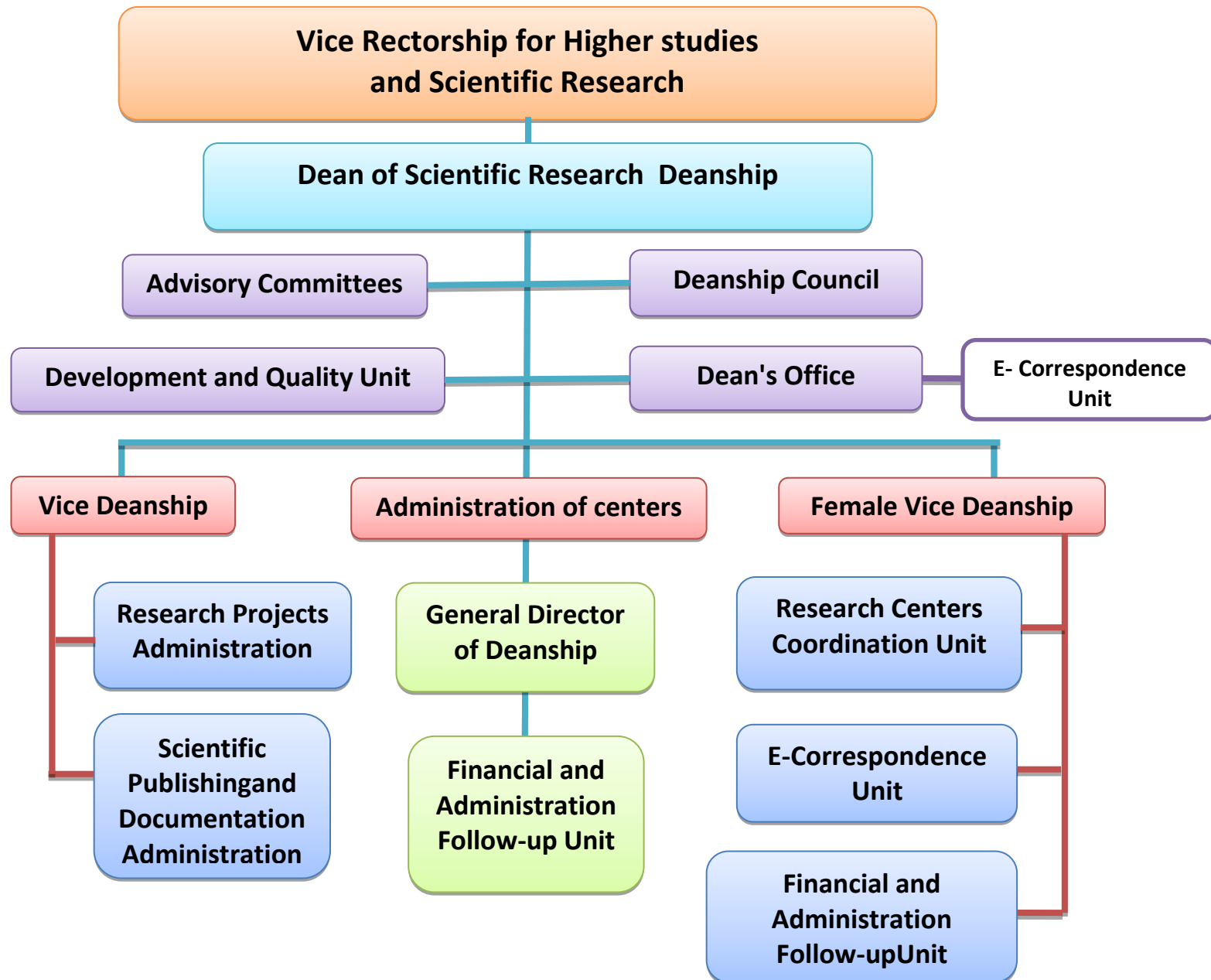


Figure (4): The organizational structure of Deanship of Scientific Research



3.2 Strategic plan of Najran University 1433/1438 AH:

A study of the strategic plan of Najran University 1433-1438 AH was done, where the focus was on the study of all the elements and aspects related to scientific research and related activities contained in the plan.

NU Vision:

Leadership in teaching, learning and community service and active contribution to building a society of science and knowledge.

NU Mission:

Offering teaching and learning that address the needs of community and the labor market, effective contribution to sustainable development through conducting applied research and optimal use of modern technologies, and establishing partnerships at the local, regional and global levels.

The strategic plan of Najran University includes several strategic determinants, and each strategic determinant includes one or more of the strategic goals. The fourth determinant (science and knowledge) has two strategic goals which have to do with scientific research and its related activities where each strategic goal includes a number of operational objectives as follows:

The ninth Strategic objective: Developing academic research policy to support sustainable development. This objective is achieved through four operational objectives, including:

- Developing the strategies and activities of scholarly research.



- Employing and utilizing modern technology in scholarly research.
- Utilizing scholarly research in scientific and specialized consultations.
- Orienting research endeavors towards future studies contributing to sustainable development.

Besides, a study of the policies related to scientific research that emerged from the strategic plan of Najran University 1433-1438h was conducted. The following are the frameworks of these policies:

- The university Scientific Research Activity should be appropriate and compatible with the international standards of scientific research. There should be a financial budget that support this framework.
- The support for University research environment to contribute to the enrichment of human knowledge in all of its branches to get scientific and applied innovative additions according to distinctive levels of quality in the services that meet the requirements of the beneficiaries and live up to their aspirations.
- The support for research and applied studies in the region of Najran as a contribution to the detection of its natural resources and the development of the region and the preservation of literary, architectural and historical heritage.
- The university encourages cooperation with the industrial field, with other authorities of scientific research, and with universities and scientific research networks at the levels of the Gulf Cooperation Council Countries and the whole world.
- The university encourages commercial investment in scientific research.
- The expansion of the research chairs system for funding University research projects with trying to use Zakat funds in this regard.



- Offering Higher studies programs characterized by scientific and research depth so as to ensure the highly competitive ability for the university in the field of Higher studies among the similar Higher Education institutions locally and regionally.
- The university appropriately and Integratedly acknowledges the contributions of Higher studies students in the joint research projects.
- The faculty members should be encouraged to adapt the idea that the courses they teach include information about their researchs and scientific activities that are related to the courses they teach, in addition to important developments in the field of their majors after the approval of the Scientific Department Council.
- In the field of the research findings, the university is committed to the regulations contained in the Document of Intellectual Property and Electronic Publishing Rights in Saudi Arabia.

In addition to that, there was a study for the results of the strategic plan projects for Najran University which were related to scientific research and the related activities that have been completed, also there was a study for the performance indicators of the scientific research that have been developed within the Strategic Plan of Najran University 1433-1438h .

3.3 The academic programs and colleges:

The university includes - Now - fourteen colleges for male and female students, and these colleges includes 28 program that grant The Bachelor Degree, including five joint programs taught at the university's headquarters in Najran, and in its branch in Sharourah province; in both the faculties of Arts and Sciences and Education in Najran on one hand, and the Arts and Sciences in Sharourah on the other hand. In addition to other four programs that award a diploma in the community College. The programs granted by the university varied between health and engineering sciences, natural, educational, Juris Prudence, administrative and computer sciences.

Scientific Research is practiced in the colleges of the university as an implied activity beside the educational tasks and community services. Scientific Research is considered one of the most important components of evaluating the



faculty members for the purpose of promotion, where this constitutes 60% of this evaluation beside teaching, which constitutes 25% and the community participation that constitutes 15%, according to the regulations of Upgrading the faculty members applicable in Saudi universities. It is Noted that the use of the standard of scientific research in the periodic evaluation of the faculty members in Najran University is Non-binding for the university programs. But lately most University faculties implemented one of the projects of the second phase of the Action plan of the Strategic Plan of Najran University 1433-1438h. A number of colleges that have implemented the project proposed one mechanism that includes scientific research as one of the components of periodic evaluation of the faculty members, but Najran University is required to issue a binding regulations for all colleges to consider scientific research as a major component in the periodic evaluation of the faculty members, with giving it the appropriate importance in this Evaluation.

3.4 Research Centers:

The university has built several institutes and specialized research centers, for supporting its research and community role, these centers include the following:

- Centre for Shariaa, Educational and Humanities Research
- Promising Center for Sensors and Electronic Devices
- Center for Health Research
- Center of Scientific and Engineering Research
- Institute of Studies and Consulting Services

(A study and an evaluation of all aspects related to the tasks and activities of these research centers, and their role in scientific research system at Najran University were done)

- **The Promising Center for Electronic Sensors in Najran University, as a specialized center:**



Najran University, since its beginning, established a suitable learning environment, it also focused on building and developing a research system in harmony with the goals of the national plan for science, Technology and innovation. The first step was the establishment of a central laboratory for the university to serve (the preparation and application of advanced materials and the Nanotechnology research papers) and provided that central laboratory with infrastructure and advanced research equipment. Najran University also employed so many distinctive researchers, then it crowned its efforts by training Saudi staff of Faculty members, researchers and technicians to participate actively in shouldering the responsibilities towards their country in the field of applied scientific research.

- The university played a prominent role in supporting that central laboratory with a fund that is worth more than 40 million SR for its preparation, then it was the ambitious Initiative of the Ministry of Higher Education for creating a system of excellence research centers and promising centers in Saudi universities that played an important role in supporting this central laboratory. It was on 24 March 1432 February 27, 2011, that the central laboratory is converted into a promising center under the name of Promising Center for Sensors and Electronic Devices in order to transform its research papers into industrial products based on science and knowledge to serve the economy of Najran and the Kingdom in the long term.

Among the most important main areas of research in the center are:

- Making and designing nanometer materials.
- Electronic sensors research.
- Renewable energy research.
- Catalysts Research papers and their applications in petrochemicals.
- Sensors (chemical and gaseous, transistor, electrochemical, optical, magnetic).

The most important achievements of the Center are:

1. The preparation of the center's infrastructure and the purchase of research hardware.



2. Finishing the Clean Room preparation and equipping it with the necessary hardware to become the first
3. Clean Room in Saudi universities.
4. The Registration of patents for some researchers in the Promising Center for Sensors and Electronic Devices:

No	PATENTS
1	S .H. Kim, Ahmad Umar, S. W. Hwang and A. Al-Hajry, "NaNo Electrode Fabrication Method", Korean Patent No. 10-1199753, (02/Nov./2012).
2	The Registration of Patent for Dr. Saleh Al Sayari (22/12/2012 AD) in the field of chemistry for industrial catalysis. It has been issued from US Patent Office known as (USAPO).

5. Holding the International Conference under the title (International Workshop on Advanced Materials for electronic sensors and Renewable Energy, 2012) during the period from 14 to May 16, 2012 AD.
6. Organizing events (the Second Forum of the centers of excellence and promising research centers in Saudi universities) on Tuesday, 28/2/1435 - 31/12/2013 AD.
7. Publishing 432 resarches in international journals in the past years which were as follows: 63 resarchesin 2011, 64 resarchesin 2012, 86 Searches in 2013, 98 resarches in 2014, and 121resarchesin 2015.

3-5 Higher studies and scholarships at Najran University:



3.5.1 Higher studies programs

Higher studies represent a major pillar in the university and Colleges, that's why it was decided in Najran University to work, according to the Uniform Regulation of Higher studies in Saudi Universities, and to be committed to executive decisions that followed the issue of this regulation.

The University Deanship of Higher studies oversees all administrative and organizational aspects of Higher studies programs at Najran University, also Master's Programs available in the colleges of Najran University were studied and evaluated; the following table shows the active University Master's Programs:

Table (2) Active Master's Programs at Najran University

N	College	Master's Program	Male students	Female students
1	Education	Special Education	Male students	Female students
2	Education	Kindergarten	-	Female students
3	Education	Curricula and Methodology	Male students	Female students
4	Arts and Sciences	Applied English	-	Female students
5	Arts and Sciences	Mathematics	-	Female students
6	Administrative Sciences	Business Administration	Male students	Female students
7	Shaaria and Fundamentals of Religion	Hadith and its Sciences	Male students	-
8	Shaaria and Fundamentals of Religion	Fiqh	Male students	-



3.5.2 Scholarships

Scholarships are one of the basics used by the university to meet its need from native Faculty members, so Najran University gave Scholarships a great importance, especially in the majors needed by the university, and offers scholarships of two types: programs the student complete all its requirements internally, and the other programs by sending the student to one of the foreign universities to join one of the existing programs there. The administrative supervision of the scholarships and training system at Najran University is done by the Administration of Scholarships and Training. The third phase of the Implementation plan of the strategic plan of Najran University 1433-1438h included a project which aims to develop the university scholarship system.

(All the information and statistics related to Scholarships at Najran University during the past years were examined, studied and evaluated)

3.6 Academic Staff Supporting Scientific Research:

A study and an evaluation were done about the data, the statistics and the analysis results of the available surveys about the numbers, diversity and efficiency of Faculty members in the various scientific majors and their scientific levels, their local, regional and international activities in the field of scientific research and related activities. This was done in the past years.



3.6.1 The Professional Support for Faculty members:

Najran University keen to continuously develop the skills of Faculty members, through the Deanship of Development and Quality, by holding specialized training workshops in scientific publishing mechanisms in internationally classified ISI-Indexed journals, , as well as their skills in writing competitive research projects.

The following is a list of the number of training programs held for both males and females and the number of male and female trainees.

Name of the training program	The frequency of the program			Number of trainees		
	Males	Females	Total	Females	Males	Total
Scientific publishing mechanisms in internationally classified ISI Journals	6	4	10	101	140	241
Writing competitive research projects	2	1	3	36	73	109

Table (3) A list of the number of training programs held for both males and females faculty members and the number of male and female trainees of the in 1435 AH

**3.6.2 Evaluators in scientific journals:**

The following table shows the number of Faculty members who were arbitrators in international, regional or local scientific journals according to the college and the type of the journal.

N	College	Evaluators in scientific journals	International journals	Regional journals	Local journals
1	Preparatory Year Deanship	2	1	1	0
2	Supporting Deanship	2	1	1	0
3	College of Education	5	1	2	2
4	Shaaaria	4	1	1	2
5	Medicine and Health colleges	13	11	2	0
6	administrative sciences	6	3	3	0
7	Arts and Sciences in Sharoura	10	2	3	5
8	Community	3	1	0	2
9	Computer Science	7	7	0	0
10	Arts and Sciences in Najran	16	13	1	2
Total		68	41	14	13

Table (4) The number of Faculty members who were arbitrators in scientific journals, 1435

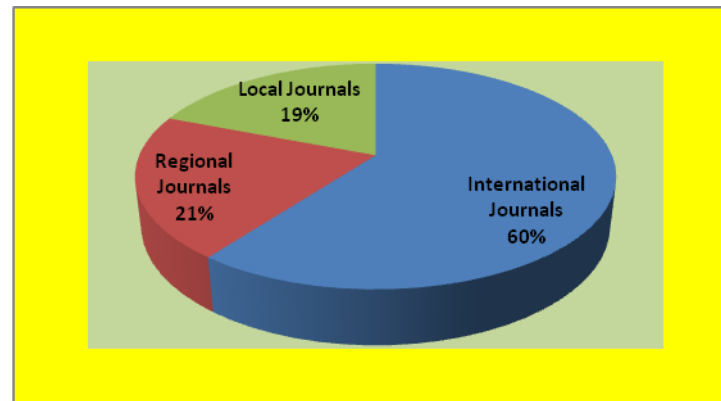


Figure (5) the relative distribution of Faculty Members who are evaluators and reviewers in scientific journals according to the Journal Type 1435 AH.

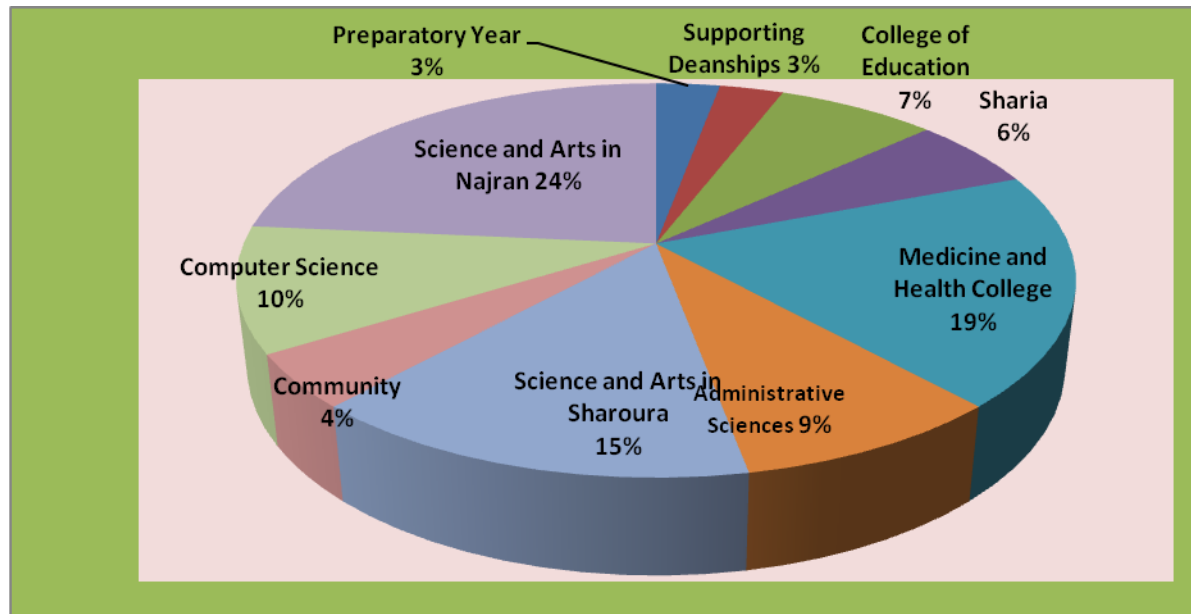


Figure (6) the relative distribution of Faculty Members who are evaluators in scientific journals according to colleges in 1435 AH



3.6.3 Excellence Awards:

The following table illustrates the number and percentage of the faculty members who won the Excellence Awards from national, regional or global Institutions for the academic year 1434/1435 AH, according to colleges.

Table (5) The number and percentage of the faculty members who won the Excellence Awards from National, Regional or Global Institutions in 1435 AH

College	Faculty Members	Number of Recipients of Awards	Percentage
Education	281	0	0
Arts and Sciences	152	0	0
Administrative Sciences	151	1	7%
Applied Medical Sciences	53	1	2%
Medicine and Surgery	***	***	***
Dentistry	12	0	0
Pharmacology	29	1	3%
Nursing	6	0	0
Community	57	0	0
Arts and Sciences in Sharoura	148	1	7%
Sharia and Fundamentals of Religion	39	0	0
Preparatory Year Deanship	111	0	0



Engineering	35	4	11%
Computer Science and Information Systems	64	0	0
Total	1138	8	%0.7

3.7 University-Funded Research Projects

The University's Deanship of Scientific Research gave due attention to encourage and develop scientific research in various fields of knowledge and to encourage researchers and the faculty members to engage in research projects funded by the University. To do this, the University encourages receiving research projects requests electronically through the follow-up of research project management system which enables researchers to complete all research-related procedures; such as submitting research papers ,following-up research papers, financial loans, the approved methodology, and the personal data. The site is shown in the following figure, which can be accessed through this link: <http://dsr.nu.edu.sa/page-20.html>



Figure (7): The Electronic Page of Research Project Management System at Najran University

The number of funded research papers for the academic year 1432/1433 and the academic year 1433/1434 AH as follows:

Table (6) Number of Funded Research Projects for the Academic Year 1432/1433 to 1435/1436

Colleges and Research Centers	Number of research Projects			
	1432/1433	1433/1434 AH	1434/1435 AH	1435/1436 AH
Islamic, educational and humanitarian Research Center	23	36	91	125



Scientific and engineering research center	30	23	47	48
Health research center	6	10	17	51
Nanotechnology Research Center	32	73	98	121
Total	91	142	253	345

3.8 Scientific Research Resources, Facilities and Equipment:

3.8.1 Research Information Resources

- Scientific Research policy at Najran University is based from the beginning on several pillars the first of them were resources of information, therefore the university provided the necessities that will upgrade the status of scientific research, such as offering paper and electronic information resources such as reference books, periodicals and research papers in both Arabic and foreign languages. It satisfied the needs of researchers to get the information in various ways and means, and to train them on using communication and information Technologies to access modern information resources and databases through the university's website.



- Deanship for Library Affairs has adopted standard benchmarking criteria for the service of the Central Library (Appendix 9) and printed and published them. It has also agreed on and implemented a plan to improve library services, beside applying an approved mechanism to provide and evaluate resources of information.
- The Deanship of Library facilitates the access to electronic information resources by publishing a statement, in the form of booklets, brochures and leaflets that include lists of databases in health, engineering, computer science, education, natural science majors, and lists of databases including research papers and E-books in Arabic and in English. A guidance manual was published to benefit from the digital library in how to use the library's catalogue to allow researchers to have the opportunities to access research results and benefit from them.
- The resources of information were evaluated from the viewpoint of the faculty members for the second semester of the academic year 1434/1435 AH. The results of the study analysis showed that the overall evaluation of the resources of information came (average) 61.8%.
- The adequacy and efficiency of the central library contents of collection of books and references were evaluated from the viewpoint of male and female Faculty members for the second semester of the academic year 1434/1435 AH regarding scientific books, references and periodicals of scientific research. The results of the analysis of the opinions of the faculty members showed that the evaluation was (good).
- The Deanship of Library allows ,on its web page, an automatic index to search for paper resources of information that is supported by the (Symphony) system, which offers the search in Arabic and in English through the following link:



<http://nulib.nu.edu.sa/uhtbin/cgisirsi.exe/IeEl1d1DVp/MAIN/48930002/60/502/X>

- The resources of information are accessible and available on the Digital Saudi Library DSL through the following link:

<http://lib.nu.edu.sa/DigitalLibrary.aspx> <http://lib.nu.edu.sa/SDL.aspx>

- Access to e-books and theses is through the following link:

<http://portal.nu.edu.sa/web/deanship-of-libraries-affairs/databases>

- Access to the electronic library is available on web page of Deanship of Library Affairs through the following link:

<http://portal.nu.edu.sa/web/deanship-of-libraries-affairs/e-libraries>

3.8.2 Facilities and Equipment of Scientific Research

An evaluation survey to evaluate the facilities and equipment of scientific research was designed and data concerning each scientific program in the University was recorded. The Collected data was analysed, and results were studied and evaluated.

3.9 Scientific Production at Najran University



The scientific progress of any nation is measured by its ability to keep up with the modern age in getting all available and organized knowledge about the human being, the universe, and life, and to conduct research necessary to ensure its continuous growth and development.

That's why, the nation's level of scientific progress is reflected by its available stock from scientific research which is dedicated to the Community at any time. It could be said that, there will be no development without scientific research and there will not be progress forward without scientific research. A form for listing the scientific activity of the faculty members was prepared. The collected data was analysed and the results can be summarized as follows:

3.9.1 The number of researchers of the faculty members whose research papers have been recorded.

The following table shows the total number of the male and female Faculty members of Najran University, whose research papers have been listed



Table (7) Numerical and Qualitative distribution of Faculty members who are active in scientific research in the faculties of the university for the academic year 1434/1435 AH

N	College	Male	Female	Total Researchers
1	Preparatory Year Deanship	9	-	9
2	Supporting Deanship	11	-	11
3	College of Education	30	11	31
4	Shaaria	15	-	15
5	Medicine and Health Sciences	23	8	31
6	Administration Science	7	-	7
7	Arts and Sciences in Sharoura	15	1	16
8	Community	8	-	8
9	Computer Science	12	2	14
10	Arts and Sciences in Najran	25	9	34
Total		145	31	176

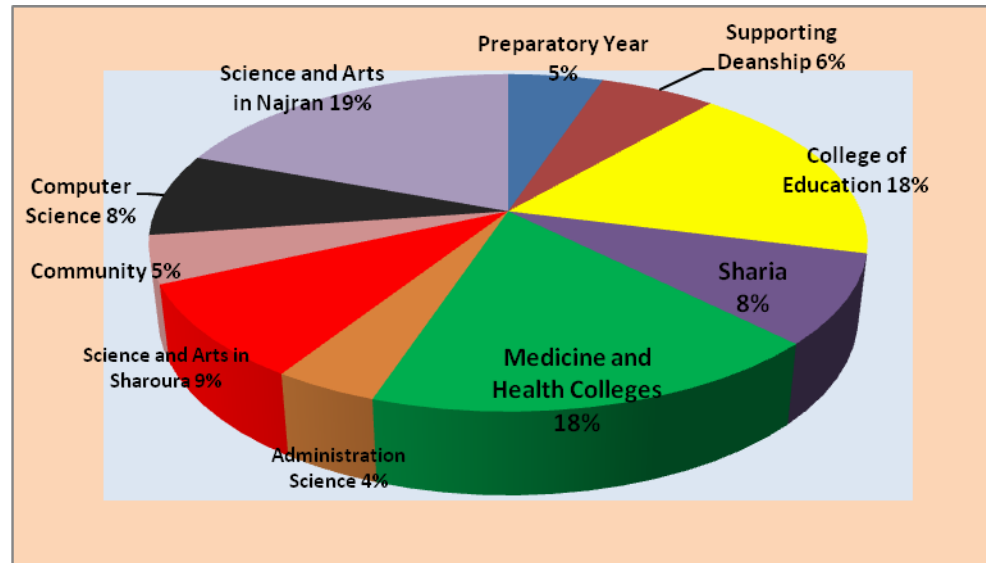


Figure (8):Percentages of the distribution of the number of researchers from the faculty members who are active in scientific research distributed over colleges of Najran University.

Based on these results, it can be mentioned that the number of Faculty members with research activity is small (176 Researchers) comparing to the total number of Faculty members carrying PHD at the university (766 Faculty members). The calculated percentage and ratio were 23% and 1: 4 respectively. These numbers were recorded at the beginning of the academic year 1434/1435 AH.

3.9.2 Distribution of Number of Faculty Members' Research Papers.

The following table shows calculation of the total number of published research papers of Faculty members at Najran University whose research papers have been recorded distributed over the last three years (2011, 2012 and 2013), at the beginning of preparing the plan.



Table (8) Distribution of the total number of published research papers of Faculty members at Najran University whose research papers have been recorded distributed over the last three years (2011, 2012 and 2013)

N	College	Number of research for 2011	Number of research for 2012	Number of research for 2013	The total number of research papers
1	Preparatory Year Deanship	3	9	14	26
2	Supporting Deanship	8	11	16	35
3	College of Education	26	32	51	109
4	Shaaria	11	8	22	41
5	Medicine and Health	24	34	51	109
6	Administration Science	16	12	18	46
7	Arts and Sciences in Sharoura	11	17	19	47
8	Community	4	8	26	38
9	Computer Science	11	15	27	53
10	Arts and Sciences in Najran	49	52	61	162
Total		163	198	305	666
The percentage of the total number of research papers		% 24.47	% 29.73	% 45.80	



Source: The electronic calculation of scientific production on the university website

The above table shows the presence of a steady increase in the number of research published over the last three years: the percentage in the year 2011 was 24.47% and in the year 2012 it became 29.73% until the year 2013 which reached 45.80%, for all the University colleges. What was published in the year of 2013 were 305 research papers. Since the number of Faculty members who obtained a PHD at the university level at the beginning of the academic year 1434/1435 AH reached 766 members, the calculated productivity rate was found to be **about 0.4% research papers**.

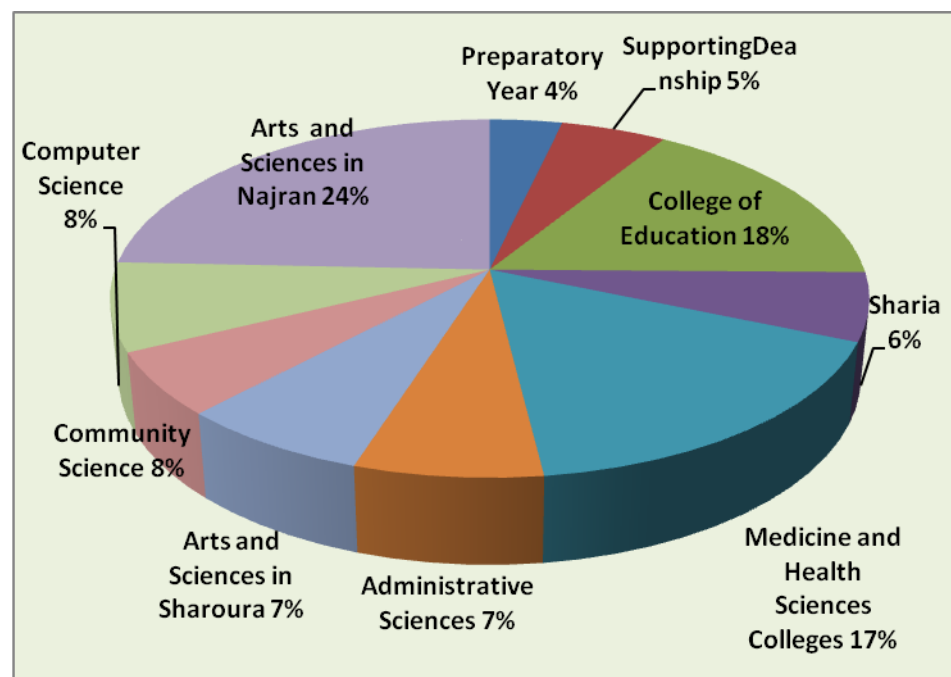


Figure (9) Percentages of the total number of research papers of Faculty Members at Najran University in the period (2011-2013)



3.9.3. Faculty Members Participating in Conferences

Faculty members at the university colleges participate in scientific conferences whether by attending or participating whether by presenting research papers, by acting as head of session, or by reviewing research papers. The following table shows the numbers of attendance and participants

Table (9) The number of Faculty members participating in conferences according to colleges in the period (2011- 2014)

N	College	No. of Conferences	Presenting Paper	Heading of Sessions	Paper Evaluations
1	Preparatory Year Deanship	9	9	0	0
	Faculty members	3	3	0	0
2	Supporting Deanships	9	22	0	4
	Faculty members	7	5	0	2
3	College of Education	33	16	0	9
	Faculty members	12	10	0	4
4	Shaaria	39	26	0	1
	Faculty members	8	11	0	1
5	Medicine and Health colleges	179	52	8	1
	Faculty members	19	20	5	1
6	Administrative sciences	23	18	4	12



N	College	No. of Conferences	Presenting Paper	Heading of Sessions	Paper Evaluations
	Faculty members	5	5	2	3
7	Arts and Sciences in Sharoura	30	9	1	8
	Faculty members	5	7	1	3
8	Community	15	11	2	1
	Faculty members	6	2	2	1
9	Computer Science	7	33	6	41
	Faculty members	4	8	2	4
10	Arts and Sciences in Najran	42	61	1	15
	Faculty members	12	15	1	2
Total		406	257	22	92
Total of Faculty members		81	86	13	21

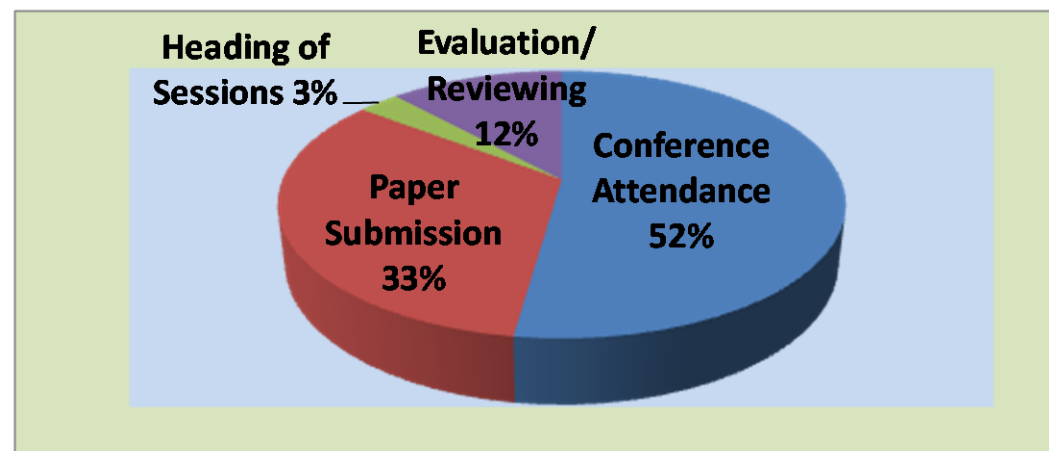


Figure (10) The percentage distribution of Faculty Members at the university according to the type of participation in scientific conferences during for the period 2011- 2014.

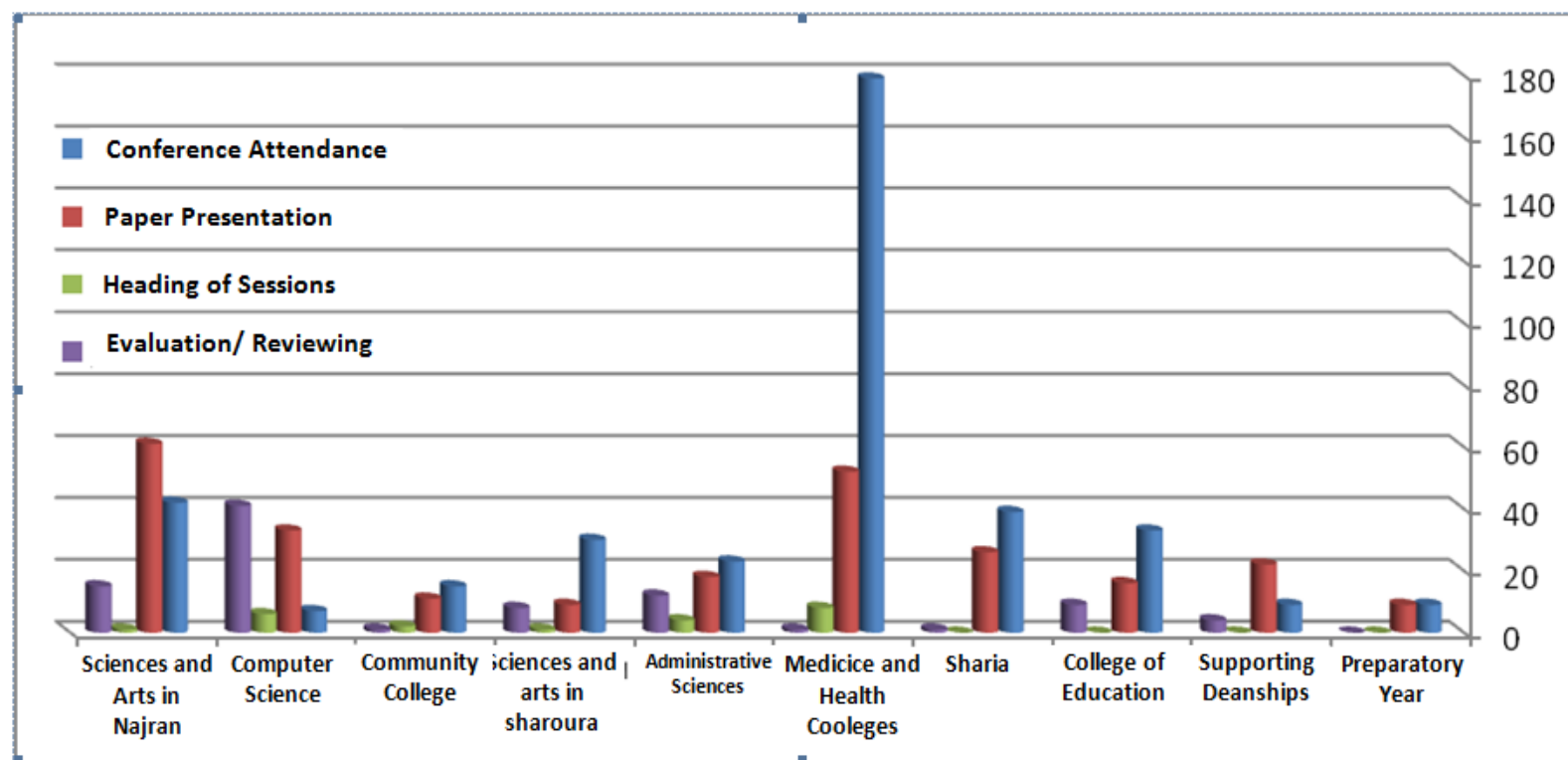


Figure (11) Type of participation of Faculty members in conferences by attending ,presenting papers ,heading a session,or evaluating according to colleges during the period from 2011 to 2014.



The above Tables and Figures show:

- Increase in the number and percentage of the Faculty members who attended conferences which reached by the end of the period 2011- 2014: 52% for the percentage of Faculty members who attended conferences, 33% for those who presented papers, 12% for those who reviewed and evaluated the research papers of the conference, while the percentage was 3% for the Faculty members who were heads of sessions.
- There is an increase in the conferences attendance percentage of Faculty members in health colleges by 46% at the level of University colleges, and the College of Arts and Sciences in Najran the percentage is 11%, followed by the College of Shaaria by 10%, and the College of Education by 9%, then the College of Arts and Sciences in Sharoura by 8%, then the College of administrative Sciences by 6%.
- There is an increase in the percentage of the number of Faculty members heading the sessions at scientific conferences of the health colleges by 36% at the level of University faculties, followed by the College of Computer Science by 27%, then the College of Administrative Sciences by 18%, and the College of Community by 9%, and the College of Arts and Sciences in Najran and in Sharoura by 5%.
- There is an increase in the percentage of the number of evaluation (arbitration) in the conference which was attended by the faculty members of the College of Computer Science by 45%, then the College of Arts and Sciences in Najran by 16%, followed by the College of Administrative Sciences by 13%, then the College of Education by 10%, and then came the College of Arts and Sciences in Sharoura by 9%.



3-9-4. Distribution of research papers published over the last three years, according to the impact factor of scientific journals.

The following Table and Figure shows the number and percentage of total research published during the last years, according to the impact factor of the scientific journals. The impact factor was divided into four categories, less than 1, more than 1 to 2 ,more than 2 to 3 ,more than 3.

Table (10) A list of online publishing in journals with high impact factor and the number and percentage of published papers over the last 3 years (1433/1435 AH)

Impact factor	less than 1	More than 1 to 2	More than 2 to 3	More than 3
Number of research papers	53	78	51	42
Percentage	23 %6	35%	22%7	18%7

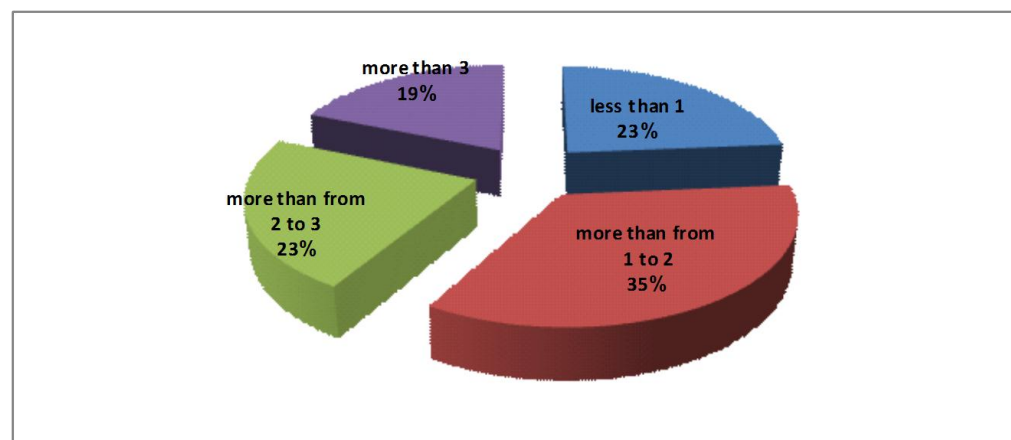


Figure (12)The distribution of the number of publications during the last three years according to the impact factor of scientific journals.



3-10 International and local cooperation agreements at Najran University:

The university has signed a number of **agreements** in the field of establishing research labs and Higher studies services and exchange of visits between professors and students as a form of exchanging scientific expertise, cooperation and scientific exchange with famous universities and institutions of Higher Education in Saudi Arabia and the distinctive educational organizations in Arabic and European Countries, as follows:

Table (11) A list of the institutions cooperating with Najran University and the aim of cooperation

The institutions cooperating with Najran University	Country	The aim of cooperation
Chenbok National University	South Korea	Training of Faculty members and students of the university in the field of engineering design for the nano-devices by forming a study of the infrastructure of nano particles, the design of equipment and instruments for different applications of Nanotechnology
Granada University	Spain	Exchanging experiences and conducting joint research papers in the field of Nanotechnology



Chinese Academy of Sciences	China	Conducting joint research papers in the field of Nanotechnology and advanced materials
National Research Center	Egypt	Scientific cooperation in various fields in Nanotechnology
Catalysts, petrochemicals Institute	Spain	Conducting research papers in the field of application of Nanotechnology in industrial catalysts and petrochemical research papers
King Abdul Aziz City for Science and Technology	Kingdom of Saudi Arabia	Providiing training workshops for Faculty members and researchers to apply for funded research projects

3-11.Ethics of Scientific Research:

Scientific Research is Not a means for itself, but is a way for the development of Community and solving its problems, so it must be based on a matrix of human values and ethics, and the university has adopted "The ethical framework of scientific research through which a researcher lives in an atmosphere full of a number of concepts and morals that will have a serious impact on the integrity of the process of scientific research at the university.

3-12. Najran University Research Chairs:

Research Chairs occupy a prominent place in the research mission of the university, so Najran University is persistingly seeking to establish and implement the scientific chairs in the various Shaaria, applied scientific, engineering, educational, humanitarian and medical fields. The university has had the honor to establish the initiation of the research chairs, represented in "the Chair of Prince Mishaal bin Abdullah in the field of endemic



diseases research" on 01/10/1431 H corresponding to 27/12/2009 AD which aims to serve the region through carrying out applied medical research to study infectious diseases in the region of Najran in terms of their types and rates of their spread, occurrence and death as well as studying the causes of endemic diseases and methods of prevention and treatment. A number of research papers have been done and have been published in international journals. Supplement No. 27 illustrates a table for a summary of research papers that have been published by the Chair of Prince Mishaal bin Abdullah in the field of endemic diseases research. The following table shows the names of a list of research papers that have been published.

Table(12) Research papers that have been published by the Chair of Prince Mishaal bin Abdullah in the field of endemic diseases research, 1435 H

N	Research title
1	HIV infection hepatic (b) in the region of Najran
2	the spread of Altksublazmajondiay disease in the region of Najran, Saudi Arabia
3	The spread of brucellosis disease in humans and animals in Najran
4	epidemiological Side of leprosy disease in the region of Najran, Saudi Arabia
5	Comparing the increase of clotting rate in children with Mediterranean anemia and sickle cell anemia in Najran
6	Researching Normal blood hemoglobin measurements and hemoglobin-ill children in the region of Najran
7	Immune and molecular diagnostics for human brucellosis disease in Najran.
8	Initial resistance to anti-tuberculosis drugs in tuberculosis southwestern Saudi Arabia
9	The causes of severe inflammation of Gastroenterology in infected children in Najran - Saudi Arabia



10	Detection of intestinal viruses in groundwater in Najran and its presence in the human and animal stool
11	There were No statistically significant relationship between the functions of the respiratory system and breastfeeding among Saudi primary school children in the city of Najran
12	The rate of spreading Rift Valley Fever and Maltese fever in south-western Saudi Arabia

The University looks forward to increasing research chairs and varying specialties, and also benefiting from the new University City and from the return endowments for buildings and projects that will be built on it to spend on research chairs requirements as well as benefit from the heritage, historical and literary environment of Najran.

3-13 The report of international evaluators team after the visit of the institutional developmental external Evaluation of Najran University in accordance with the developmental Evaluation project between Najran University and NCAAA:

In the shade of the developmental Evaluation project signed by Najran University with the National Authority for Evaluation and Accreditation NCAAA, a team of international evaluators with Consultants from the National Authority for Evaluation and Accreditation has a visit for external developmental Evaluation at the institutional level of Najran University in the period from 14 to March 19, 2015. The Authority has sent the report of international evaluators team to Najran University after the visit, the report contains a comprehensive and accurate Evaluation of the extent to which Najran University meets the standards of institutional academic accreditation set by the National Authority for Evaluation and Accreditation. The tenth standard that represents scientific research was within these standards, this standard was sorted as the best standard in terms of the number of accolades.

The Committee of the team preparing the strategic plan for scientific research at Najran University studied the report thoroughly especially the part related to the standard of scientific research and the study resulted in this proposing a number of strengths and weaknesses concerning the system of scientific research and its related



activities at Najran University, which was taken into account in the various stages of the preparation of the strategic plan for Scientific Research at Najran University.

4. Analysis of the external environment:

4.1. Scientific Research Policies in the Gulf Cooperation Council (GCC):

All research institutions agreed that there is an urgent need for a national policy for scientific research and development at the level of the Gulf Countries that would includes the following:

- Encouraging research and development activities through legislative and financial and organizational mechanisms.
- Achieving a balance in the research capabilities and development between different areas, taking into account the distinctive elements of available human competencies or raw materials or websites or otherwise
- Coordination between research units and developments within the production and service areas, and between these areas on the one hand and universities, research centers and data units on the other hand.
- Promotion of the international relations in the fields of knowledge, Technology and information, for the benefit of the national infrastructure in research papers and development.

4-2 .Ministry of Higher Education:

4.2.1 .International Exhibition and Conference on Higher Education and international cooperation agreements:



An International Exhibition and Conference on Higher Education is part of the Ministry of Higher Education's ongoing efforts to raise the quality of Higher Education in the Kingdom which is organized by the ministry under the patronage of the Custodian of the Two Holy Mosques in Riyadh International Exhibition and Conference Centre in the presence of the academic leaders and managers of local and international universities. The Exhibition seeks to host universities and international Higher Education institutions under one umbrella in Saudi Arabia where experiences are mixed and exchanged, and the academic and administrative leaders from several countries meet, and Higher Education institutions and their members can gain new and multiple experiences, and modern methods and different global potentials. The exhibition and conference provides database for signing international cooperation agreements among Higher Education institutions in the UK and their global counterparts in the public and private spheres in the fields of Higher Education, whether inside or outside the Kingdom.

The Exhibition attracts the best universities which are globally classified as distinctive, along with a number of the world's Higher Education institutions and relevant international organizations, in a move that emphasizes the excellence and responsiveness of international universities with the invitation of the Ministry of Higher Education, this is in reference to what the show enjoys of a wide reputation, along with Saudi universities and higher institutions and organizations of measurement, evaluation and academic accreditation, e-learning and distance learning and research and studies centers.

The Exhibition organizes a number of panel discussions, lectures, training courses, workshops where the participation are the major companies such as Saudi Basic Industries Corporation (SABIC) and Company of Saudi Aramco CSR confirming the social commitment of the Saudi Companies to support the Higher Education and the development of knowledge and the leadership skills in the Kingdom.

That Event attracts large numbers of male and female Saudis especially students willing to have scholarships to know the most important international universities, where King Abdullah Foreign Scholarship Program currently provides grants to study abroad for many Saudi students



These conferences are used in signing international agreements in the field of scientific cooperation between Saudi universities and top world universities in a move that reflects the persisting pursuit of national universities to keep pace their global counterparts and gain experience, and to strengthen the bonds of cooperation between them and the famous universities to benefit from their expertise in the field of scientific research and to offer services for Saudi male and female students who want to complete their education in international universities.

Najran University is keen on the annual active participation in this event, and books its special pavilion inside the exhibition that is provided with all the information and reports on the vision, mission of the university, its strategic goals, and its activities in the field of teaching and learning, scientific research and community participation. The university sends a large number of students and College Faculty members and other teaching staffs as well as researchers, and a large number of administrative and academic leaders are keen on active participation in the proceedings of the conference and exhibition. The university has achieved a number of objectives and goals as it holds several cooperation agreements with a number of global universities and international centers, also the University introduces itself to the other universities through several activities at the exhibition, including preparing gifts for this occasion with different levels, preparing handbooks and brochures for the university and its achievements and its projects since its founding supported by figures and facts. The documents proved that the university pavilion is visited by the Minister of Higher Education and a number of ministers, princes and heads of universities, officials in the Ministry of Higher Education as well as a large number of visitors to learn about the university potentials in all of its departments.

4-2-2. Centers of research excellence in Saudi universities:

The Ministry of Higher Education seeks to achieve global leadership in various scientific majors through innovation and excellence in performance, and in order to achieve the Trends of the state's tenth development plan, the ministry focused on the support and encouragement of scientific research and Technological development to enhance the efficiency of the national economy, and keep up with moving towards a knowledge-based economy



through a number of initiatives and programs, so the ministry launched its initiative to establish centers of research excellence in a number of Saudi universities in two stages after specifying and publishing the rules organizing the Centers of research Excellence for the Ministry of Higher Education.

The ministry thinks that these centers will contribute to achieving some of the goals of the scientific research within the Higher Education strategic Afaq plan, which includes the establishment of effective research centers, raising the universities to advanced ranks in the global classifications, directing scientific research to serve the transformation of the Saudi economy towards knowledge-based economy, and benefiting from available distinctive competencies. These centers will open broad fields of cooperation with international universities to benefit from their expertise and outstanding experience which enhances and highlights the role of the leadership of the Kingdom in encouraging science and scientists and their contribution in developing scientific research.

The team specialized for the environmental analysis studied and evaluated the data and statistics that have been collected about the research excellence centers in various Saudi universities, also a comparative study with the positions and the activities of the Promising Center of electronic sensors in Najran University.

4-3. Research Chairs in Saudi universities:

Research Chairs are considered one of the most effective resources of developing scientific knowledge, and new Technologies, and achieving community development, knowledge excellence in scientific, economic, social and other fields, they also contribute to the development of creativity and innovation, which aims to achieve community partnership with all of its physical, and humanitarian aspects, to achieve the desired benefit from the techniques, and available facilities at the university to serve the community and solve its problems, to contribute to sustainable development, and to enrich knowledge and economies.



The Research chair represents a University Unit with administrative and financial flexibility, its mission is to encourage areas outside the university to contribute to the construction of a research and consulting environment and to facilitate its work in this area.

The scientific chairs in Saudi universities reached 193 chairs focusing on the aspects of scientific and applied, medical , economic , social and Shaaria development. A comparative study was done between some research chairs in some Saudi universities such as King Abdul Aziz University and the Chair of Prince Mishaal in the field of endemic diseases research in Najran Region.

4-4 .King Abdulaziz City for Science and Technology:

King Abdul Aziz City for Science and Technology is considered an independent authority directly related to the Presidency of the cabinet of Ministers, founded in 1397/1977 by the Royal Decree No: M / 60 and was called at its establishment as the National Center for Science and Technology, which later changed by the Royal Decree No. M / 61, which was issued in 1405/1985 to be King Abdul Aziz City for Science and Technology.

The objectives of the City:

Supporting and encouraging scientific research for applied purposes.

Coordinating the activities of the scientific research institutions and centers in line with the requirements of development in the Kingdom.

Cooperating with the specialized agencies to identify priorities and national policies in the field of science and Technology in order to build a Technological scientific base to serve development in the agricultural, industrial, mining and other areas.

Founding the infrastructure to support scientific research in the UK, including research grants programs and networks of communication between researchers and research database.

Doing applied research in specialized research institutes that belong to the city.



Eight specialized research institutes belong to King Abdul Aziz City for Science and Technology, in the fields of energy, astroNomy, geophysics, remote sensing , natural and environmental resources, oil, petrochemical industries, atomic energy, electronics and computers and scientific instruments center. scientificdepartments are specified in all of these institutes with setting goals and disciplines for each of them.

Najran University seeks scientific cooperation with King Abdul Aziz City for Science and Technology, some scientific leaders from Najran were invited to visit Najran University, where they presented workshops for the faculty members and other teaching staffs and researchers, in NajranUniversityto illustrate how to take advantage of the different types of support offered by King Abdullah City Aziz city for Science and Technology in the field of scientific research. Some scientific leaders at Najran Universitynumber made scientific visits to the city to strengthen the commonbonds between Najran University and King Abdul Aziz city for Science and Technology in the field of scientific research and the related activities.

4-5.TheNational Plan for Science, Technology and Innovation

Benchmarking studies conducted by the benchmarking studies Committee in the team of preparing the strategic plan for scientific research at Najran University on the long-term comprehensive national plan for science, Technology and innovation showed that it is possible to benefit from the programs and projects of science and Technology that emerged out of this plan by listing and putting them into account when preparing the strategic plan of scientific research at Najran University.

4-6. Partnerships with the private and public business sectors in Saudi universities

The support of companies and institutions of private and public sectors of scientific research in universities is one of the important factors that lead to the advancement of scientific research and raising it to the stage of self-financing in these universities. This support takes many aspects, including funding research projects or awarding prizes in innovation and scientific excellence or scholarships for a master's degree MA or a doctorate degree PHD



in research topics. A number of cases have been studied where some Saudi universities are funded by these companies and institutions, in order to encourage scientific partnerships between Najran University and the field of business, whether in the private or governmental domains, and this will be put into consideration at the different stages of preparing the strategic plan for scientific research at Najran University.

5-The results of the environmental analysis of the scientific research system and the related activities in Najran University:

The results of the environmental analysis of scientific research system and the related activities in Najran University showed some strengths that characterized the university, which can be invested to achieve its mission; as well as showed some weaknesses that may affect the efficiency and effectiveness of the scientific research performance at the university. The results also showed some opportunities if seized and taken advantage of, they will be good for the progress of scientific research results at the university, as well as some threats that must be dealt with in a proper way to avoid their impact on the scientific production of the university.

Strengths :

- Deanship of Scientific Research's adoption of Research Project funding System of the faculty members.
- The apparent efforts of Deanship of Higher studies and Scientific Research to improve the quality of scientific research.
- Najran University distinguished Alumni Scholarship for Master's (MA) and doctoral (PhD) degrees from famous national and international universities.
- Najran University provided adequate infrastructure for scientific research in colleges and some scientific research centers.



- The presence of qualified faculty members and researchers that enable the university to hold scientific conferences for the male and female students of undergraduate and higher studies stages.
- Scientific Production diversity for Faculty members in the various specialized fields.
- The outstanding contributions of Faculty members in conferences and scientific publications.
- Research Excellence of the Promising Center of Electronic Sensors specialized in the field of Nanotechnology all over the Kingdom.
- Number of praisings received for the scientific research standard (as the best standard in terms of numbers) in the report of international evaluators team after external institutional developmental evaluation of the university.

Weaknesses:

- Lack of a mechanism for the annual evaluation of the scientific production in the research centers at the university.
- Lack of a committing policy to use scientific research standard in the periodic evaluation for the faculty members and the likes, and researchers, like the assessment conducted for the purpose of promotion.
- Lack of sufficient scientific partnerships between Najran University and other universities that are interested in scientific research and research centers at the national and international levels.
- Lack of organizational structures and internal regulations organizing the work of research centers at the university.
- The lack of a research plan for most of the research centers at the university.
- The lack of a specialized program for guiding and advising researchers and new faculty members and other teaching staff in matters related to scientific research.
- The widespread weakness of the economic marketing culture of scientific research among researchers and faculty members and other teaching staff at the university.



- The weakness of the different scientific activities such as conferences and scientific symposiums at the university.
- Lack of evaluation of the facilities and equipment for Scientific Research at the program level.

Opportunities :

- The existence of national political and legislative trends for expansion in the areas of scientific research and related activities in Saudi Arabia.
- The Support from King Abdul Aziz City for Science and Technology for Scientific Research and related activities in Saudi universities.
- The possibility of signing international cooperation agreements in the field of scientific research with universities and international research centers that participate annually in the conference and exhibition of Higher Education organized every year by the Ministry of Education (Domain of Higher Education).
- The spread of the culture of financial support of the community to support research chairs at universities.
- The growing culture of scientific and research cooperation of Saudi Universities with the companies and institutions in business at the governmental and private domains.

Threats:

- The accelerated Technological developments and scientific discoveries in Technology, software and hardware used in scientific research worldwide.
- The difficulty of maintaining and retaining outstanding scientific competencies at the university, because Najran region is very distant and does not appeal to the College Faculty Members and distinguished technical staff.
- The potential drop in the budget allocated to scientific research by the university in the light of the current circumstances.



Second: Vision, Mission and Values

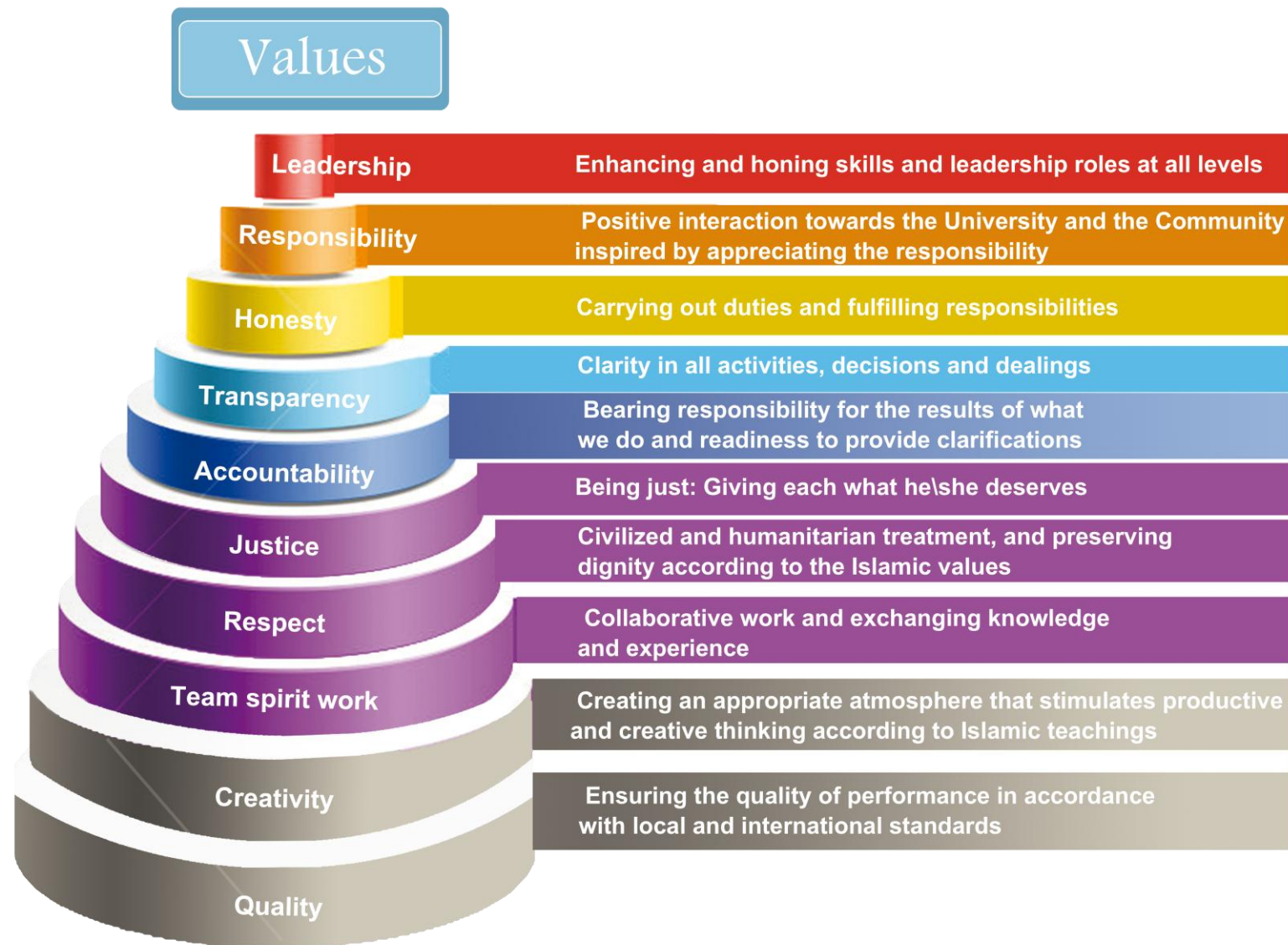
Scientific Research

Vision

A leading Research system contributing to the enrichment of science and knowledge-based Community

Mission

The production of high-quality scientific and applied research to contribute to the achievement of national development plans, development of education process through providing a motivating research environment, developing innovation and creativity skills and expanding research partnerships with a trend towards a knowledge-based economy.





Third: Strategic Trends–Objectives

Projects - Performance Indicators

Strategic Trends	Objectives
Stimulating research environment	Developing scientific research facilities and equipment according to standard criteria
	Providing information resources and databases for the purposes of scientific research
	Developing scientific research skills for faculty members and researchers.
	Strengthening funding and stimulation systems for distinctive scientific production.
Innovation and creativity	Producing innovative and applied scientific research.
	Sponsoring and supporting innovators.
Research partnerships towards Knowledge-based economy	Establishing research partnerships at the national and global levels.
	Supporting research papers of economic returns and which are related to industry.



Strategic Trend	Strategic goal	Project	Performance indicators
Stimulating research environment	First: The development of scientific research facilities and equipment according to standard criteria	1- completing the preparation of specialized research laboratories in colleges and research centers	1. An annual increase in the rate of expenditure on completing laboratory equipment with Not less than 10%.
			2. Satisfaction of faculty members and researchers with research lab facilities is Not less than 80%.
		2- Designing and activating a comprehensive system for the maintenance of facilities and equipment of scientific research in colleges and research centers	1. Presence of maintenance contracts with specialized companies or professional technicians.
			2- Percentage of problems and malfunctions in laboratory equipment and research centers does Not exceed 5% of the number of devices annually.
			3. Satisfaction of faculty members and researchers with maintenance works is Not less than 90% annually.
	Second: Providing information resources and databases for the purposes of scientific research	1. Developing and updating the Central Library and the specialized libraries in colleges	1. Rate of increase in the number of periodicals and databases in which the university participates is Not less than 2% annually.
			2. Rate of increase in the number of scientific books and references is Not less than 10% annually
			3. Satisfaction of faculty members and researchers with the university information resources is Not less than 80%.
	Third: Developing scientific research skills for faculty	1. Developing and implementing an annual training plan for	1- Number of workshops and training courses carried out according to the plan is Not less than 90%



Strategic Trend	Strategic goal	Project	Performance indicators
	members and researchers	Developing faculty members's skills (including Higher studies students) based on the study of their needs	2. Satisfaction of trainees from faculty members and researchers is Not less than 80%.
			3. The target percentage of trainees from faculty members trainees annually is 60%
Stimulating research environment	Forth: Strengthening funding stimulation systems distinctive scientific production. and for	1. Developing a list of appreciation rewards and excellence in the field of scientific research	The existence of an annual award presented by Najran University in the field of scientific research.
			Rate of atisfaction of faculty members with the items of rewards of appreciation and excellence in scientific research is Not less than 80%
		2. InNovating a mechanism to encourage gaining scientific awards both locally and internationally	-Increasing the support provided by the universityfor scientific research with a percentage of 2% annually
			Increase in the rate of locally and internationally award-winning research papers is Not less than 2%
		3. InNovating a mechanism for the commercialization of applied research papers	Rate of increase in commercial marketing of applied research papers is Not less than 5% annually.



Strategic Trend	Strategic goal	Project	Performance indicators
		related to community service and issues	
Innovation and creativity	Fifth: Reinforcing creativity and innovation when conducting applied scientific research.	1. Developing policies to encourage researchers to produce innovative scientific research papers	Rate of faculty members' satisfaction with the standards (University policies to encourage innovative research papers set by the university) is Not less than 80%
		2. Producing innovative applied scientific research papers	The existence of a list of areas of innovation available at the university that conform to the worldwide innovation areas with a percentage of 60%
			Increasing the percentage of innovative research papers according to the university approved standards (standards set by the university) to 10% annually
	Sixth: Sponsoring and supporting innovators	1- Studying the public and private needs of innovators.	The number of services offered by the university for innovators and creative researchers
			Increasing the number of innovators and creative researchers to 3% annually
		2- Developing a mechanism to sponsor and support innovators.	Percentage of satisfaction of innovators and creative researchers with the services offered to them by the university is Not less than 80%.



Strategic Trend	Strategic goal	Project	Performance indicators
Research partnerships towards Knowledge-based economy	Seventh: Establishing research partnerships at the national and global levels.	1- Implementing an action plan for national and global partnerships (for doing joint research projects according to calculations).	Increasing the number of annual research partnerships with a certain rate: a research partnership for each research sector.
	Eighth: Supporting research papers of economic returns and which are related to industry.	1- Developing acceptance and support standards for joint research projects.	The annual increase in the percentage of economic return research papers is 10% annually.
		2. Creating an award for research excellence with economic returns.	



Fourth: Research Trends of the Academic Majors at Najran University

The field of Religious/Sharia Sciences:

College	Research Trends depending on the program / department	Research Priorities
Sharia and Fundamentals of Religion	Sharia	<ul style="list-style-type: none">- Comparative Fiqh, fundamentals of jurisprudence.- Islamic politics.- Contemporary Fiqh issues (financial transactions, medical issues and new issues in other areas).- Heritage of jurisprudence and its verification.- Contemporary issues.
	Fundamentals of Religion	<ul style="list-style-type: none">-Contemporary issues.-The Hadith and its sciences.-Interpretation and its sciences.-Belief.-Islamic Da'wa (Call to Islam).

**The field of Educational Sciences:**

College	Research Trends depending on the program / department	Research Priorities
Education	Curricula and Methodology	<ul style="list-style-type: none">- Evaluation of Modern Curricula: textbooks, teaching aids, field practicum course, courses of the Department of Curricula at the university....- Modern approaches in teaching strategies: This approach could include: Higher Education methods such as metacognitive strategies, teaching methods in public education such as constructive learning strategies.- Use of Technology and e-learning in teaching: e-learning systems- Effectiveness of virtual classroom in teaching the courses of curricula and teaching methods.- The role of education in human development: environmental awareness "intellectual awareness" and social responsibility.
	Special Education	<ul style="list-style-type: none">- The impact of early intervention on reducing learning difficulties.- Effectiveness of behavior analysis field on reducing hyperactivity.- Contemporary issues and their impact on teaching for students with special needs.- The role of cognitive activities in the learning and teaching of students with special needs..- Research papers related to the best and effective strategies in teaching students with learning difficulties.- Global standards of special education institutions.- Global standards in evaluating special education teachers, especially teachers of students with learning difficulties- The impact of cultural, economic and familial diversity and social environment on teaching students with special needs, and the category of learning difficulties.



College	Research Trends depending on the program / department	Research Priorities
		<ul style="list-style-type: none"> - Programs for preparing and training teachers of students with learning difficulties. - Modern Technology in the field of special education.
Education	Department of Education and Psychology	<p>First: Psychology</p> <ul style="list-style-type: none"> -A study on students' psychological problems and its relationship with some variables. -Preparing guidance programs in the light of learning motivation -Preparing, designing and codifying standards and psychological tests about the culture of Najran area -A study on psychological problems and their relationship with social variables -Paying attention to the study of personality psychology in light of the various majors of psychology -The study of factors of both creative thinking and critical thinking among male and female students <p>Second: Pedagogy:</p> <p>a. Philosophical Fundamentals of Education:</p> <ul style="list-style-type: none"> -Curriculum in pedagogy (Towards a new approach to the study of Fundamentals of Education). -Epistemology in humanitarian/ Islamic thought and its educational reflections. -Human nature in humanitarian/ Islamic thought and educational reflections. -Pedagogical theory (Towards an Arab Islamic educational theory). -Educational Values.



College	Research Trends depending on the program / department	Research Priorities
Education	Department of Education and Psychology (continued)	<p>B. Economic Fundamentals of Education: The Cost and expected return of the application of academic accreditation and quality systems in educational institutions. The economics of scientific research (expenditure on scientific research in the light of world rates and the expected return from scientific research)</p> <p>C: Social and cultural fundamentals of education: Quality of educational services in schools and universities. The role of various educational institutions in building a knowledge-based community. The educational role of modern social media. The impact of globalization and its cultural consequences on the values in Muslim societies (citizenship – belonging – Consultation – values of human rights). Using body language in education process. Virtual University and distance learning for teaching Muslim miNorities in the world and remote environments. The problems of the production and spreading of knowledge in the Arab world. The Requirements of e-learning application in schools and universities. Towards the application of Smart School Model in Saudi schools.</p>



College	Research Trends depending on the program / department	Research Priorities
Education	Department of Education and Psychology (continued)	<p>Third, Educational Administration:</p> <p>Strategic planning for school male and female principals based on comprehensive quality assurance standards.</p> <p>Preparing school principals in the light of contemporary developments.</p> <p>Training school in-service principals in the light of contemporary developments.</p> <p>Teaching school principals the skills of using and dealing with Technology.</p> <p>Providing general culture for school principals with the different types of administrative cultures.</p> <p>Teaching school principals the needed skills for the process of suitable balanced guidance of learners.</p> <p>school principals' evaluation of teachers' performance in the light of local and international quality philosophy and contemporary developments.</p> <p>The development of programs related to school principals at Education College Najran University in the light of some local and international quality standards.</p> <p>Professional development of school principals in the light of knowledge-based community requirements.</p>
	Kindergarten	<ul style="list-style-type: none"> -Islamic rooting for bringing up child. -Childhood problems -Global trends in the development of kindergarten programs. -Community-based programs for children. -Childhood systems.



College	Research Trends depending on the program / department	Research Priorities
Education	Home Economics	<ul style="list-style-type: none">-The field of clothing and textiles:-Drawing and plastic arts-The field of flower arrangement inside house, institutions and squares-Development of the production of uniforms supplements in terms of design and materials used-Artistry and environmental works and their use to rationalize expenditure and develop small industries-Modern techniques in drawing and interleaving pattern and how to use it in the field of ready-made garments.-Innovation in fashion design.-Textiles and taking care of it.-Manual knitting and how it can help in the development of small industries.-Modern methods of printing and the areas of its use-Baby clothing, home clothing and events clothing and how to use them to rationalize consumption in the family.-The use of manual and automatic embroidery in small industries development.-Modern methods of automated embroidery and how to benefit from them in ready-made clothing factories.-The use of manual and automatic embroidery, artistry works and printing in the field of decorating clothing.-The use of manual and automatic embroidery and printing in the field of artistry works.-Reusing old clothes and recycling them to cope with fashion.



College	Research Trends depending on the program / department	Research Priorities
Education	Home Economics	<p>The field of nutrition and food science:</p> <p>The field of therapeutic nutrition of patients of (Diabetes – high blood pressure– acute and chronic renal failure — liver disease with its different types – osteoarthritis – heart and atherosclerosis– obesity)</p> <p>Area of Microbiology:</p> <p>the work of some food products that benefit particular groups of patients such as categories of diabetics – liver patients – obesity.</p> <p>Nutrition of sensitive categories such as (children □ pregnant women □ teenagers □ Lactating mothers □ the elderly □ athletics □ nutrition of people with special needs.</p> <p>Wrong food habits and beliefs among female students.</p> <p>The emergence of obesity cases in Saudi Arabia and modern methods of prevention.</p> <p>Rationalizing food consumption.</p>
	Computer (educational)	Computer skills for teachers.

**The Field of Arts and Sciences:**

College	Research Trends depending on the program / department	Research Priorities
Arts and Sciences	English	<p>Applied and theoretical linguistics, and literary studies</p> <p>Comparative Syntactic analysis of English-Arabic languages</p> <p>Modern teaching methods</p> <p>Improving English skills</p> <p>Teaching English as a foreign language.</p> <p>Problems encountered by Arabs learning English as a second language.</p> <p>English Translations of the Qur'an</p> <p>Issues of education quality in English language</p> <p>Acoustic studies based on language labs</p> <p>Attitudes of teachers and students of English language towards studying English</p>
	Physics	<p>NaNometric electrothermal materials.</p> <p>Crystalline development and the study of physical properties of certain semiconducting crystals.</p> <p>Simulation of nanoparticle formulations and studying the impact of bitmap defects on their electrical and chemical properties.</p> <p>Studying collision of high potential nuclei.</p> <p>Environmental radiological measurements of some radioactive elements for samples of soil, water</p>



College	Research Trends depending on the program / department	Research Priorities
		and air using ultrapure germanium detector. Theoretical and experimental study of solid state Gas Sensors. Radiation measurement produced by construction materials used in Najran environment. Measurement of radon-222 in mineral water using an ultrapure germanium detector.
Arts and Sciences	Chemistry	The development of catalysts - the properties of polymers - add-ons to improve the properties of lubricating oils. Preparation of organic compounds with biological, physical and pharmacological effects. Extracting organic compounds with biological effects from natural plants. The Study and analysis of organic and inorganic compounds. Estimating some elements in different food products that have various negative effects on human health



College	Research Trends depending on the program / department	Research Priorities
	Arabic	<p>Studies in grammar and morphology.</p> <p>Studies in Linguistics such as the study of some old linguistic phenomena in ancient dialects and modern local dialects.</p> <p>Literature in its different eras: Pre-Islamic era, Islamic era; Abbasi era and modern era; examining the objective values and technical characteristics of folk poetry</p> <p>Rhetoric, semantics, <i>al-bayian</i> (stylistics and Diction.</p> <p>Critical and Applied Research.</p> <p>Developing Arabic language program (in its courses- performance of faculty members - teaching strategies)</p>

**The Field of Computer Science and Information Systems:**

College	Research Trends depending on the program / department	Research Priorities
Computer science and information systems	Computer Science	Software Engineering Computer Aided Design Geometric Modeling Web Accessibility for Disabled People Cloud and Grid Computation Reversible logic and quantum computation Artificial Intelligence and Expert Systems Physical Computation Networking Wireless Sensor Networking Wireless Communication
	Information Systems	Artificial Intelligent Educational Data Mining Optimization Problems Educational Data Mining Swarm Intelligence Artificial Intelligence & Security



College	Research Trends depending on the program / department	Research Priorities
		Social Network Analysis Data Warehousing Database and Data management Information system management Software Reliability Engineering OLAP

**The field of Engineering Science:**

College	Research Trends depending on the program / department	Research Priorities
Engineering	Electrical Engineering	Electrical Renewable Energy Power, Drive, Control Systems Communication Systems
	Civil engineering	Civil Remediation of problematic soils Environmental and water resources Repair and Rehabilitation of concrete and steel structures
	architecture	Architecture Architecture and Engineering Education Energy in architecture Sustainability in architecture and urban planning
	Mechanical and chemical engineering	Mechanical Engineering: Applied Mechanics Chemical Engineering: Renewable energy

**The field of Community service:**

College	Research Trends depending on the program / department	Research Priorities
Community	Information Systems	Artificial Intelligence. Networking. Multimedia Database. Database. Data Mining. E. Learning. Multimedia and IT. Intelligent Programming System.
	Business Administration	Administrative development in Najran. Small and intermediate projects and their impact on economic development. Obstacles of marketing agricultural products in Economic Najran area. Financial stumbling and its impact on supporting local development projects.



The field of Orientation for University Students:

College	Research Trends depending on the program / department	Research Priorities
Preparatory Year Deanship	Linguistic, personal, math and computer skills	English language skills. Math skills. Computer skills. Self-development skills.

**The Field of Health Sciences:**

College	Research Trends depending on the program / department	Research Priorities
Applied Medical Sciences	Radiological Sciences	<p>Radiation Dosimeters during radiological examinations.</p> <p>Developing human body similarity phantom for CT, and ultrasound.</p> <p>Quality control of radiological diagnostic devices.</p> <p>Using films to estimate the radiation doses at radiography examinations.</p> <p>Rate of fatty liver in Najran patients of (20-60) years old in King Khalid hospitals (January 2011-December 2012).</p> <p>Problems faced by Female Students of Radiology Department, Najran University during teaching practice period.</p> <p>Leadership in the field of Diagnostic Radiology for faculty members in Sudanese universities during the 2012-2013.</p> <p>Telemedicine and Teleradiology in Saudi Arabia.</p> <p>Radiotherapy using Tomotherapy slice therapy.</p>
	Physiotherapy	<p>Physiotherapy for Internal Medicine and the elderly.</p> <p>Physiotherapy for neurology and its surgery.</p> <p>Physiotherapy for Pediatric Ophthalmology.</p> <p>Physiotherapy to bone disease and its surgery.</p> <p>Physiotherapy for diseases of the circulatory system, respiratory system and the heart.</p> <p>Physiotherapy for sports injuries.</p> <p>Physiotherapy using various means of treatment.</p>



College	Research Trends depending on the program / department	Research Priorities
	Laboratories	Clinical Laboratory
Nursing	Nursing	Nursing role in spreading health awareness among citizens in Najran. The educational process to develop nursing program at Najran University.
pharmaceutics	pharmaceutics	Medical drugs. Pharmaceutical Chemistry. Pharmacists. Pharmacology. Clinical Pharmacology.
Medicine and Surgery	Medicine and Surgery	Endemic diseases in Najran. Infectious diseases. Age diseases (high blood pressure – diabetes). Famous genetic diseases in the region. Different old age diseases such as cardiovascular diseases, neurological diseases, strokes, cancer and other chronic diseases such as kidney failure.
Odontology	Odontology	Using fillers and indemnities of advanced materials (naNo-materials). Modern methods of Implantology and the use of advanced materials that are biologically compatible to compensate the bone.



College	Research Trends depending on the program / department	Research Priorities
		<p>Making additions and modifications of the materials used in formulations and moving additions and their effects on the efficiency of performance after a time.</p> <p>The accuracy and efficiency of the various output of the (CAD-CAM) device that is multi-dimensional in clinics and laboratories.</p> <p>The practical efficiency of modern laser devices used in dentistry and their subsequent impacts.</p> <p>The efficiency and the effects of the use of computers and modern means of drilling teeth that are Not mechanized and Non-traditional.</p> <p>The study of the percentages of dental disease in children and their environmental influences.</p> <p>Mechanical and physical properties of dental materials.</p> <p>Prevalence and prevention of dental caries.</p> <p>NaNo Technology in dentistry.</p> <p>Laser applications in dentistry.</p> <p>Forensic odontology.</p> <p>Research papers related to Orthodontic and implants in dentistry.</p> <p>Research papers related to removable appliances.</p> <p>Research papers related to orofacial lesion and its managements.</p> <p>esearches related to Behaviour and stress in dentistry.</p> <p>Research papers related to Shielding prophylaxis efficiency and techniques during radio therapy.</p>

**The field of Administrative Sciences:**

College	Research Trends depending on the program / department	Research Priorities
Administrative Sciences	Business administration	The stimulus - the overall quality - the administrative creativity - organizational conflict - marketing - public relations - Human Resources - Islamic insurance - international trade - facilities management - Information Systems - Financial markets - Quantitative Methods - small businesses - financial management - Currency relationships - intellectual capital - Islamic banks - good governance - academic advising problems.
	Public administration	Strategic Planning. Public relations in management. Crisis management, training and administration development. Modern concepts for the management of office work. Hospital management. Leadership and management control. International organizations management. Development management. Comprehensive quality.
	Accounting	International Accounting Standards and the convenience of their application in Saudi companies Corporate governance, financial statements and Evaluation/review committees. Accounting data and stock prices. The role of profits and book value in determining stock prices in the financial market. The policies of profits distribution in economic institutions.



College	Research Trends depending on the program / department	Research Priorities
		Corporate governance and financial market problems. Institutions and capital market.

The Field of Specialized Research Centers:

Research Trends depending on the program / department	Research Priorities
Nanotechnology research to serve environmental and development issues	Manufacturing and designing naNometer materials. Chemical and gas sensors. Transistor Sensors. Electrochemical sensors. Optical sensors. Magnetic sensors. Field Emission devices.



Fifth: Najran University Policies in scientific research

First: Commitment to Unified Scientific Research Regulation

Najran University abides by the unified Regulation of scientific research in Saudi universities issued by Higher Education Council decision No. (10/02/1419 e) in the tenth session of the Higher Education Council meeting, held on 06/02/1419 AH, hoNored telegraphically by the consent of the Custodian of the Two Holy Mosques, Chairman of the Higher Education Council No. 7 / b / 4403 and the date of 02/04/1419 AH, and amendments thereto, or any amendment that may appear in the future.

Najran University implements the consolidated list of scientific research through executive decisions issued by the universitycouncil, Vice Rectorship for Higher studies and Scientific Research, and Scientific Research Deanship, in terms of their authorities.

Second: The commitment to the Regulation Organizing the affairs of the Saudi universities staff: Faculty members and other teaching staff.

Najran University is committed to the regulations of the affairs of Saudi universities staff: faculty members and **other teaching staff**, issued by the Higher Education Council decision No. 06/04/1427 AH, taken at the sixth session of the Higher Education Council, held on 26/8/1417 H, or any amendment that may appear in the future. The administrative and academic units of Najran University apply the items contained in the regulation of Saudi universities staff: faculty members and **other teaching staff** related to the standards of evaluating the scientific production of the applicants for promotion.

Third: Scientific Research Policies in the Strategic Plan of the University

The universityapproved its scientific research policies through the universitystrategic plan in which scientific research public policies are as follows:



- The convenience and compatibility of the university scientific research activity with scientific research international standards and the provision of financial budget that supports this trend.
- Supporting the university research environment to contribute to the enrichment of human knowledge in all its branches to reach scientific and applied innovations according to distinctive levels of quality in the services that meet the requirements and aspirations of the beneficiaries.
- Supporting research papers and applied studies in Najran to contribute to the detection of natural resources, the development of the region and the preservation of its literary, architectural and historical heritage.
- The university encourages cooperation with the industrial field, and other Scientific Research organizations, cooperation with universities and scientific research institutions at the level of the Gulf Cooperation Council and the whole world countries.
- The university encourages commercial investment in scientific research such as feasibility studies and technical studies related to the majors in the university.
- The expansion in research chairs system for funding university research projects and using Zakat funds in this regard.
- The establishment of Higher studies programs characterized by scientific and research depth in order to ensure the University's highly competitive ability in the field of Higher studies among its counterparts Higher Education institutions locally and regionally.
- The university appropriately and entirely acknowledges the contributions of its male and female postgraduate students in the joint research projects.
- Encouraging faculty members to involve information about their research papers and scientific activities in the related courses they teach, in addition to the important developments in their specializations after being approved by the Scientific department board.
- With respect to the research results, the university abides by the regulations in document of intellectual property and electronic publishing rights in Saudi Arabia.



Fourth: Management of Scientific Research System at Najran University

Vice Rectorship for Higher studies and Scientific Research and its subsequent departments according to the university organizational structure take over the responsibility of applying scientific research policies, regulations and their associated procedures, and following up their execution and development, each for its part according to the Higher Education Council issued by the Royal Decree No. 2/8 dated 06/04/1414 AH, its executive regulations, and the amendments issued about them, and these entities are as follows:

The Scientific Council,

Deanship of scientific research,

Deanship of Higher studies,

Deanship of Library Affairs,

The Institute of Studies and Advisory services,

Research, Excellence Centers and research Chairs, and

Scholarship and Training Department.

Fifth: Planning for Scientific Research

The Vice Rectorship for Higher studies and Scientific Research depends in the management of scientific research system on strategic management according to the university scientific research strategic according to international scientific methodologies accepted in this regard.

Deanship of scientific research monitors, evaluates and develop Najran University strategic plan to ensure achieving the university's mission and strategic goals in this regard.



Every Department program in the colleges' Academic Departments is committed to offer its research trends clarifying their relevance to the strategic plan of scientific research.

The university and its academic and research units depend in the preparation of strategic plans of scientific research on the national development plans of the Kingdom of Saudi Arabia and the needs of Najran community with attention to closer cooperation with the field of industry.

Najran University and all its academic and research units adopt supporting the concept of innovation and creativity in its scientific research strategic plans.

The university and its academic and research units encourages its faculty members and researchers to conduct applied research papers to support sustainable development of Najran community and provide its necessary financial support.

Sixth: Supporting Research Papers

The university provides all facilities, specialized research laboratories, scientific equipment and materials required for scientific research in the university colleges, research & studies centers to achieve the university mission in this regard.

Vice Rectorship for Higher studies and Scientific Research sets mechanisms for developing the Financial resources needed to support scientific research and Technological development.

Vice Rectorship for Higher studies and Scientific Research works on expanding the number of faculty members involved in scientific research activities by committing to the following policies:



A) University funding of Faculty Members' Research Papers on a Competitive Basis:

The annual announcement of the research areas funded by the university on a competitive basis through a program run by Deanship of scientific research .

The faculty members, winners of University funding of their research papers, abide by the rules and regulations set forth by Deanship of scientific research, Najran University in this regard.

The reward of researchers is given once a time after the completion of the research, its publication or getting the allowance of publishing in one of the specialized journals according to the regulations set by the scientific research Deanship in this regard (As for the loans required to provide research material, they are offered when required); the researcher continues to offer the necessary reports on the research project every three months.

The need to mention the name of the university linked to the name of the researchers and the need to mention that the paper is funded by the scientific research Deanship, referring to its number.

B) Vice Rectorship for Higher studies and Scientific Research, in some cases, can provide a research grant to one of the academic or research units to finance the implementation of a specific research project closely related to achieving the university's mission and strategic goals in a particular period according to the university priorities in this regard.

C) Vice Rectorship for Higher studies and Scientific Research can contribute to the partial funding of the implementation of joint research projects with external institutions, such as research areas at public or private companies and organizations. The university research or academic unit has to submit a request to Deanship of scientific research, attached with a copy of the contract between the parties involved illustrating the various items and the obligations of each party.



4- Faculty members wishing to do research papers with external or internal institutions or abroad have the right to get a sabbatical according to the regulating conditions and regulations in Saudi Arabia.

5- Vice Rectorship for Higher studies and Scientific Research, through Deanship of scientific research and all its specialized units, sets mechanisms to qualify and encourage faculty members and researchers to apply for local and international awards in the fields of scientific research and innovation.

Seventh: Requirements for Doing Research Papers in Academic Departments

Najran University faculty members are committed to do research papers and publish their results in the acknowledged journals, with a high impact factor, taking into consideration avoiding conflicts with community entities as a result of publishing these research papers.

Vice Rectorship for Graduate Studies and Scientific Research directs faculty members to search for funding their research papers, with the continuation of University Najran in the application of its own program supporting and funding faculty members' research papers in a competitive framework.

Eighth: Research Management in Academic Departments

1. Each department has a research plan taking into account the university research trends as follows:

Faculty member prepares his expected annual contributions to scientific research according to the program approved research trends during the first month of the new academic year, including the following information about each research paper with his/ her expected contributions in this regard:



Research Title,.

The objective of the research,.

The relation of faculty member's research paper with his affiliated program in the college,

Names of participant researchers, and

Source of funding the research paper (Academic Department / University Scientific Research Funding Program/ other resources)

Research materials such as chemicals and scientific equipment, laboratories and other research requirements provided by the academic department to faculty member to do research, should be mentioned in case of absence of other resources,

Stage of scientific research (new topic / Preliminary stages / final stages)

The starting date of Research and expected date for its completion.

Faculty member offers his expected contributions to scientific research to the concerned Head of Academic Department.

The Academic Department Council board/ Scientific Research Committee in the Academic Department studies and discusses the research plan presented by the faculty member with him and a decision is taken whether to totally or partially be approved or finally rejected. The report of the Board academic department board / Committee of scientific research department should be enclosed with the Scientific Research plan when presented to the Scientific Council of the Section, and this report should illustrate the following factors:

A) The extent of relevance of research papers mentioned in the faculty member's plan to both the college scientific research plan and the department scientific research plan.

B) The availability of funding, scientific instruments, equipment and research materials to conduct the research papers included in the faculty member's research plan.

C) The extent of abiding by the terms of the scientific research policies of Najran University.



1. In case of the approval of scientific Department Council board on the submitted research plan, the head of the department submits the board decision attached with its supporting documents to the Dean / College Council for final approval.
2. At the end of academic year, the academic department submits a detailed report including the achievements and outcomes achieved in its research plan.

Ninth: Intellectual Property

Without violating the rules and regulations organizing in the Saudi Universities:

A) Faculty members have the right to retain the intellectual property rights of the research or intellectual or creative production that is outside the scope of the position which a faculty member occupies.

B) Faculty member is entitled to retain the intellectual property rights of the original academic works that have literary or artistic characteristic in nature which the Faculty member produced by his own in the scope of the position which a faculty member occupies such as the books he used in teaching, with the exception of research results in which the role of the faculty member is confined to supervision only.

C) Students in The Bachelor stage and Higher studies have the right to retain intellectual property of the works they accomplish during their study such as graduation projects and master theses, but in some cases the university can sign an agreement with the students before the beginning of the study or during it, where in such cases the intellectual property goes to the university. The most important of these cases that require contracting are the following:

1. When intellectual property expected to be obtained is based on an output which had already an intellectual property issued for the university.



- 2 .When the universityresources have a major and fundamental role in obtaining the expected intellectual property.
- 3 .When the intellectual property expected to be obtained is as result of collaborative work comprising a number of the universitystaff.
- 4 .When the role of the universitystaff member or researchers supervising the student's research project that is expected to result in an intellectual property, is a participant in addition to the supervisory role.
- 5 .When the study conducted by the student and expected to result in an intellectual property, includes an external party or organization as a third party.
- 6 .When intellectual property expected to be obtained has an economic or commercial value and benefit to the university.

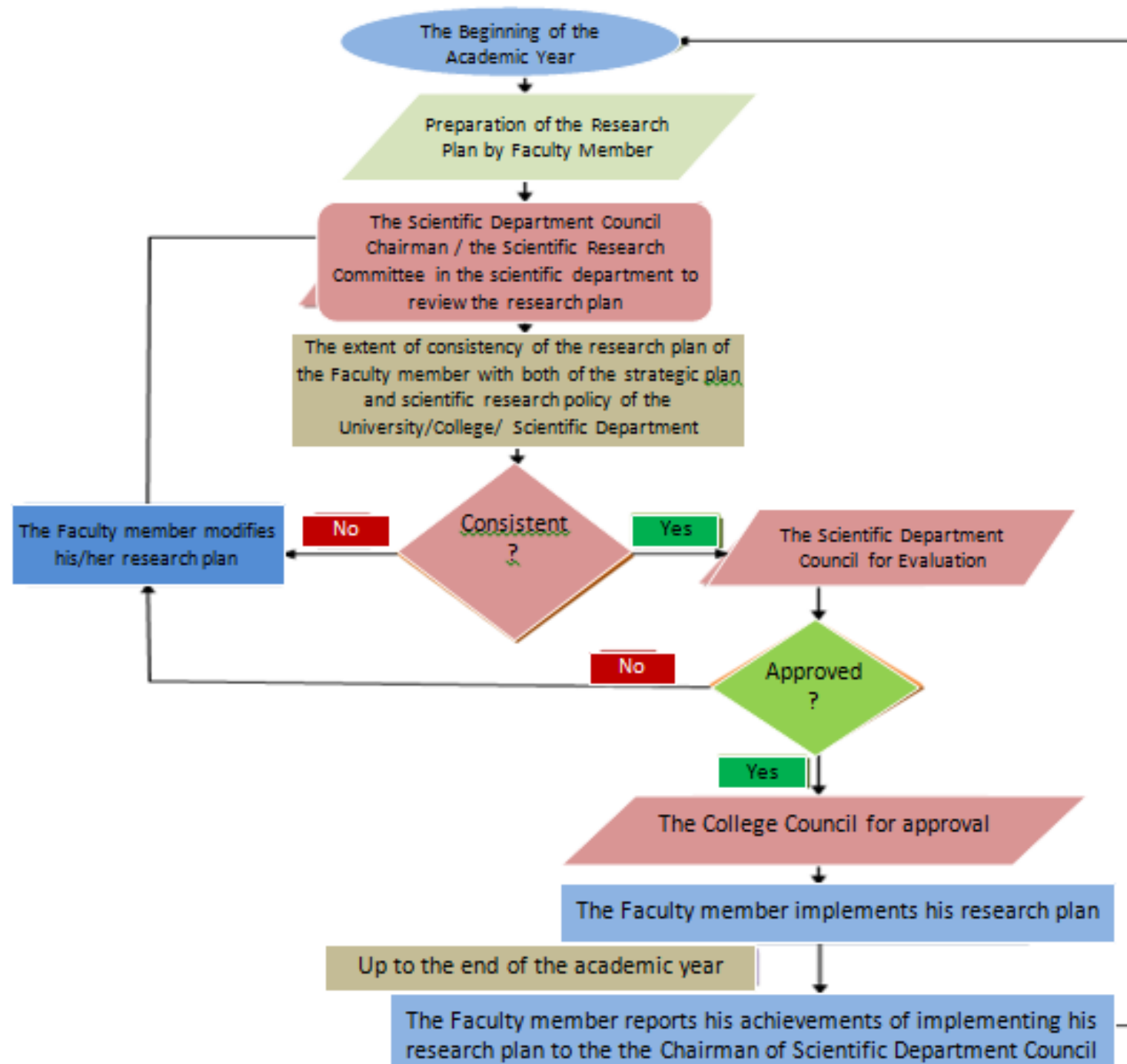
D) Intellectual property rights are attributed to the universityin the following cases:

- 1 . All the works that are produced, printed and used in the universityadministrative work such as faculty members'evaluation templates, and surveys related to the universityactivities, revision templates of the different university academic, research and administrative units, and those used in the educationa process and exams.
- 2 .All of what is produced as a result of a contract between the faculty member and the university, such as research papers funded by the universitythrough Scientific Research Funding Program run by Deanship of scientific research.
- 3 .All of what is produced of the works assigned to the faculty member by the universityconcerned authorities and his role is restricted to supervision.

Tenth: Monitoring and Evaluating Performance of scientific research and its Related Activities



- 1 .Vice Rectorship for Higher studies and Scientific Research, and its Supporting Deanship follow up the evaluation of scientific research performance indicators and its related activities, performance indicators of higher studies in the research and academic units of Najran University, according to the authorities for each department.
- 2 . College Dean and Academic department Councilboard take over the responsibility of following up and evaluating of faculty members' scientific research performance indicators in the concerned colleges. In the case of research centers the Center Director does so.
- 3 .Vice Rectorship for Postgraduate Studie and Scientific Research provides databases for scientific esearch which are updated continuously, with the possibility of their access to all University staff who are involved in scientific research and its related activities.
- 4 . Faculty members are committed to submit a full and detailed report at the end of each academic year about their achieved outputs and activities related to scientific research lto the concerned Head of Department who, in turn, writes an analytical report and submits it to the college Dean.



**The
mechanism
for
conducting
Scientific
Research
at Najran
University**

An administrative decision

According to:

- The authorities granted to the Vice-Rector of Higher Studies and Scientific Research
- The betterment of work.

The Vice Rector decides:

First: Forming the main teams for the project of preparing the strategic plan of scientific research according to the formation enclosed with the decision and according to the required tasks enclosed for each team.

Second: Approval of the formation of the enclosed organizational structure.

Third: The teams acts from the date of issuing the decision until the end of the project.

Fourth: Whoever concerned should be Notified of this decision.

The university **Vice Rector** of Higher Studies and Scientific Research
Prof. Mohamed Bin SoltanAlaseery

Sixth: Appendices

KINGDOM OF SAUDI ARABIA
Ministry of Higher Education
(044)
Najran University
Vice president of Postgraduate
and Research Office

المملكة العربية السعودية
وزارة التعليم العالي
(٤٤)
جامعة نجران
مكتب وكيل الجامعة
للدراسات العليا والبحث العلمي

جامعة نجران
NAJRAN UNIVERSITY
تأسست عام ١٤٢٢ هـ

لدراسات العليا والبحث العلمي

قرار إداري

- إن وكيل الجامعة للدراسات العليا والبحث العلمي.
- وبناء على الصلاحيات الممنوحة له نظاماً .
- وبناء على ما تقتضيه مصلحة العمل .

يقرر ما يلي

أولاً: تشكل الفرق الرئيسية لمشروع إعداد الخطة الإستراتيجية للبحث العلمي حسب ما ورد في التشكيل المرفق بالقرار ووفق المهام المطلوبة المرفقة لكل فريق.

ثانياً: الموافقة على تشكيل الهيكل التنظيمي المرفق.

ثالثاً: تبدأ الفرق أعمالها من تاريخ صدور القرار وحتى نهاية المشروع.

رابعاً: يبلغ هذا القرار لمن يلزم.

وكيل الجامعة
لدراسات العليا والبحث العلمي

أ. د. محمد بن سلطان العسيري

First: Forming the teams

1. The major team

- Prof. Mohamed Bin SoltanAlaseery The university Vice Rectorship for Higher Studies and Scientific Research General Supervisor
- Dr. Mohamed Bin Ali AlsheheryExecutive Director of preparing the Strategic Plan and Scientific Research Project
- Dr. Ibrahim Mostafa ShaabanVice Executive Director of preparing the Strategic Plan and Scientific Research Project

2. Environmental analysis team

- Dr. Shaker Abo Elfetoh Head
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وزارة التعليم العالي
(٠٤٤)
جامعة نجران
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| ●Prof. Nasser Algizawy | Member |
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| ●Dr. Mohamed Bin Ali Alshehery | Head |
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| ●Prof. Ahmed Reda Aggour | Member |
| ●Dr. Mohamed Sayed Zakhira | Member |
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