



Beni-Suef University

*بنی سوئف یونیورسٹی*

**R**ESEARCH  
**P**LAN

(2015-2020)



*Towards a Research University*

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## Contents

#	Subject	Page
1	The President`s Speech.	4
2	Speech of the Vice-President for Graduate Studies and Research.	5
3	Team of Research Plan Editors.	6
4	Translation Team.	7
5	Beni-Suef University, An Overview.	8
6	Why Beni-Suef University`s Research Plan (2015-2022) is Important?	11
7	The Main Goals of BSU Research Plan (2015-2020).	13
8	Beni-Suef University`s Slogan and General Vision in the second decade of the 21 <sup>st</sup> Century.	14
9	Beni-Suef University`s Policies concerning Graduate Studies and Scientific Research.	15
10	Research Core Values.	17
11	Beni-Suef University within the International University Rankings.	18
12	International Institutions Collaborating with Beni-Suef University.	19
12	Beni-Suef University Goals Concerning Graduate Studies and Scientific Research Sector.	21
13	The action plan for the development of Graduate Studies and Research Sector.	26
14	The Bodies Participating in the Implementation of the Research Plan.	69
15	The Methodology followed in preparing the Research Plan.	70
15	Elements of Executing the Research Plan.	72
16	Contents of Bank of Laboratories and Scientific Instruments.	75
17	BSU Research Fields.	93
18	The action plan for research topics within different research fields.	100
19	Mechanics of Implementing the Research Plan.	246
20	Obstacles and Risks.	247
21	Ways of overcoming the obstacles and risks.	248

## The President`s Speech



The major aim of the research plan of Beni-Suef University (2015-2020) is to raise the level and quality of scientific researches in the university to meet international standards, and to become a leading research university in Egypt. Thus, the University can improve its position in university rankings regionally and globally. To achieve such an important goal, Beni-Suef University (BSU) seeks to improve the level of services and to encourage research projects offered by the university that aim at the development of society and offer solutions to its problems, and to turn into an electronic university. In addition, BSU works hard to improve the administrative structure to remove obstacles and routine rules that could slow the rate of our development.

*Prof. Amin Lotfy*

**BSU President**

## Speech of Vice President for Graduate Studies and Research



The five-year research plan (2015-2020) of BSU focuses on building a base of researchers who are able to deal with different problems facing various sectors of our community (productive, service, national, voluntary or academic), so as to develop the society, enrich its culture and benefit the national economy in order to effectuate the social responsibility of the university. Accordingly, this bank of actual problems of our community that require solutions will be the proper areas of research to be studied by academic staff members, Master & Ph.D. students through research projects, scholarships and fellowships. In this sense, Beni-Suef University's major research aim is to employ scientific and theoretical research ideas and projects to serve and comply with the State's economic, health and social development plans. The financial support of these research projects will be covered through various sources including BSU research endowment fund as the main source. Other supporting elements of BSU research plan are several initiatives offered by Beni-Suef University such as the establishment of BSU Research City, Bank of Laboratories & Scientific instruments, International journals of BSU published by Elsevier, Patents Unit, Research-Industry Link Unit, international partnerships & collaborations. In this regard, BSU was the first initiator for the development of the National Plan of Scientific Research by the Egyptian Government, starting from the concept that "Planning is bringing the future into the present".

*Prof. Tarif Shawky*

**BSU Vice-President**

## Team of the Research Plan Editors

			
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# Beni-Suef University

## An Overview

Beni-Suef University is an Egyptian governmental University, located on the banks of the Nile River in the city of Beni-Suef, 120 km south of Cairo, Egypt.



It was established in 1976 as a branch of Cairo University, until its independence in 2005 according to the presidential decree number 84/2005. It comprises 22 faculties, which are categorized into four main sectors as follows;



#	Sector	Faculties
1	Basic Sciences	Faculty of Science
2		Faculty of Graduate Studies for Advanced Science
3		Faculty of Agriculture
4	Social & Human Sciences	Faculty of Commerce
5		Faculty of Law
6		Faculty of Education
7		Faculty of Arts
8		Faculty of Economic Studies & Political Science
9		Faculty of Mass Communication
10		Faculty of Physical Education
11		Faculty of Kindergarten
12	Medical Sciences	Faculty of Medicine
13		Faculty of Pharmacy
14		Faculty of Veterinary Medicine
15		Faculty of Dentistry
16		Faculty of Physical Therapy
17		Faculty of Nursing
18		Faculty of Public Health Sciences
19	Engineering Sciences	Faculty of Engineering
20		Faculty of Computer & Information Sciences
21		Faculty of Industrial Education
22		Faculty of Applied Arts

BSU comprises about 62,000 undergraduate and postgraduate students who enrolled into 75 undergraduate programs and 336 postgraduate programs (87 Diploma, 118 Master & 131 PhD programs). In addition, Beni-Suef University has valuable and promising components in terms of the material resources of structures, buildings and land, which amounts to a total area of almost 636 acres, those components that are expected to contribute effectively to the achievement of the desired aspirations of BSU during the next five years.

## **Why Beni-Suef University's Research Plan (2015-2022) is Important?**

1. The research plan determines the course of the research activities and sets the major research goals of the University.
2. The research plan identifies the mechanisms of conducting and implementing the research activities of the University.
3. The research plan puts the general guidelines to turn Beni-Suef University into a leading Egyptian research university.
4. The research plan highlights societal and communal problems and proposes research topics and projects that help in meeting them.
5. The research plan helps effectively in planning and directing international scientific and research missions, and collaborative research projects with international universities and research institutes worldwide.
6. If the research plan has been developed well, it will have positive outcomes on the research environment at Beni-Suef University. It will help Egyptian researchers to collaborate with international researchers and to improve their publication record. All this helps in improving the international ranking of Beni-Suef University.

7. The proposed research plan of Beni-Suef University encourages a future-oriented vision of the educational and research environments, with the aim to relate and improve them for the benefit of the student, the researcher and the society.
8. The proposed research plan denotes a wise and well-planned use of the resources and finances of the university.
9. The existence and implication of the proposed research plan produces and develops a strong, confident and qualified management and administrative staff with a scientific vision for the future of the university.

## **The main goals of BSU Research Plan (2015-2020)**

- 1. Enhancing key research themes and create new research opportunities with high impact on the national and international scene.**
- 2. Stimulating novel multidisciplinary research interactions across disciplines and faculties thus contributing to development of innovative research and academic programs.**
- 3. Achieving excellence in driving evolution in the knowledge-led economy and enriching the knowledge-informed society.**
- 4. Strengthening internationally competitive research in highly promising evolving areas.**
- 5. Expanding investment in areas of strategic importance with the purpose of enhancing our ability to attract, retain, and develop graduate students.**
- 6. Capitalizing on the most effective use of research funding resources exploiting the benefits of the full value of intellectual property and research commercialization.**

## **Beni-Suef University's Slogan and its General Vision in the second decade of the 21<sup>st</sup> Century**

In line with the efforts of Beni-Suef University to become a leading Egyptian research university, the slogan of the university is **"Towards a research university"**. It aims at improving the research tools and methods to compete on the regional and international levels.

Stemming from the belief that research and educational processes should contribute to the development of the society and propose solution to its problems, Beni-Suef University adopts scientifically oriented and ambitious research policies.

### **Vision**

**"Towards a Research University, accredited nationally and internationally, pioneer regionally and globally, provides excellent education and serves its society effectively".**

### **Mission**

**"Beni-Suef University promotes research and educational processes and directs them towards solving societal problems, contributing to the development of the society locally, regionally and globally".**



## **Beni-Suef University's Policies concerning Graduate Studies and Scientific Research**

In relation to improving the sector of scientific and postgraduate studies and research, Beni-Suef University seeks to achieve the following goals:

- Securing a proficient and efficient educational and research environments and methods.
- Improving the quality of scientific research and publication to comply with international standards.
- Designing and preparing scientific programs for the development of academic and research capabilities, and improving quantitative and qualitative methods.
- Adopting innovative and creative approach in order to encourage and enable researchers to conduct their new research ideas and proposals, particularly research related to environmental, cultural, societal and scientific problems in the Egyptian society.
- Improving and updating the resources, data and materials available at the university' libraries.
- Fostering the interaction and collaboration with other local, national and international research institutions and universities.
- Directing the research projects towards addressing the priorities of the university and the society, and promoting innovation
- Ensuring that the proposed research plan is being implemented and steadily supervised.
- Supporting inter- and multidisciplinary research at the university.

- Providing adequate funding for scientific and applied research of a national importance.
- Regulating the foreign scholarships and grants for the benefit of setting research targets for the university.
- To effectively and professionally address scientific obstacles and administrative difficulties facing postgraduate researchers and researchers,
- To work within a set agenda and specific time frame.
- Organizing conferences, seminars and scientific symposiums that enrich research ideas and exchange.
- To appoint talented researchers who adopt unusual and creative ideas and research proposals.
- Supporting and developing the financial resources.
- To integrate the overall research policies with the areas of education and community service.
- Installing the ethics of scientific research.
- To encourage the development of patents and innovations in order to serve the objectives of the university, especially in relation to national causes and concerns.
- To prepare graduates who meet the needs of the labor market.
- To develop a strategy for the efficient management of the proposed plan and to ensure its overall quality and accreditation at all faculties and research centers of the university.

## Beni-Suef University's Research Core Values

Beni-Suef University aims to achieve its research goals within a group of core values, which determine the identity of Beni-Suef University as a Research University seeking to develop its society through education and research of international quality, as follows:

- Moral obligation towards equality on ethnic, gender and racial grounds.
- Academic Honesty.
- Commitment to the freedom of the researcher.
- Creativity and innovation.
- Internationalization.
- Protection of intellectual property rights.
- Development of the spirit of the teamwork.
- Cooperation and communication.
- Community service and leadership.
- Ensuring high quality.
- Transparency and academic freedom.
- Non-discrimination.
- Equal opportunities.

## **Beni-Suef University within the International University Rankings**

In relation to be a leading Egyptian research university, the leadership of Beni-Suef University works hard to improve the international ranking of the university. According to U.S. News, Beni-Suef University comes in the twenty-eighth position among Arab universities and the twelfth position among Egyptian universities in 2015. See <http://www.usnews.com/rankings>.

According to Webometrics, Beni-Suef University improves its position from being number 7700 in 2013 to be number 5488 in 2014, then to be number 2779 in 2015. The university plans to be one of the first thousand universities in the world in 2016. See <http://www.webometrics.info/>.

BSU aims to increase its collaborative and mutual research with international institutes and universities. A detailed description of signed research treaties and collaborative research projects is available at the website of each faculty at Beni-Suef University.

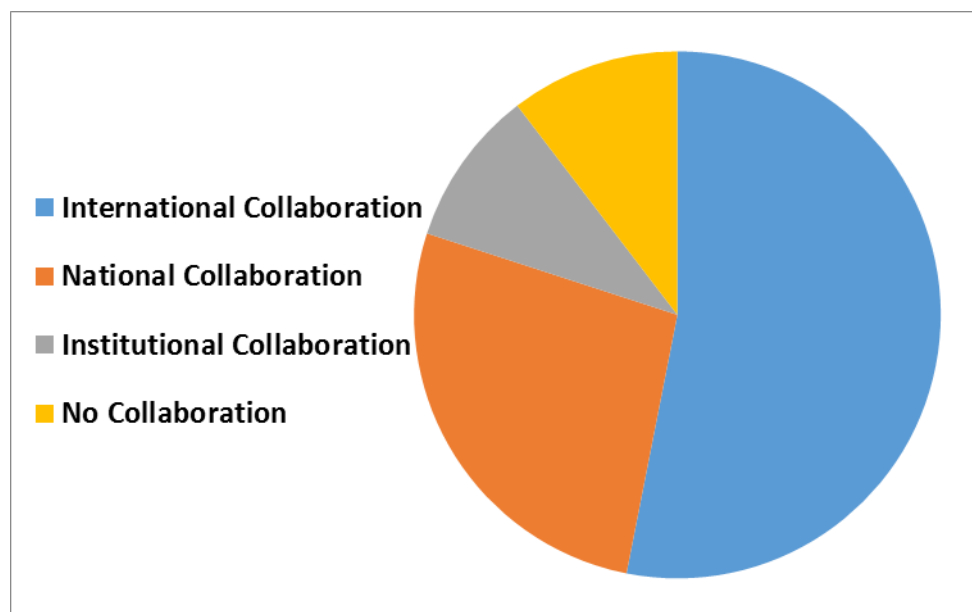
## International Institutions Collaborating with Beni-Suef University

According to the data published by SciVal<sup>®</sup> of ELESVIER (2016), about 543 international institutions collaborated with Beni-Suef University on 1,310 co-authored publications in international peer reviewed journals during the last 5 years.



Publications at BSU by amount of international, national and institutional collaborations (SciVal<sup>®</sup>, 2016):

#	Collaboration	%
1	International Collaboration	53.1
2	National Collaboration	26.9
3	Institutional Collaboration	09.6
4	No Collaboration	10.4





## Goals and Objectives of Beni-Suef University Concerning the Development of Graduate Studies and Research Sector

The major strategic goals of BSU for the development of the Graduate Studies and Research Sector are the creation of *"Global innovative scientific research based on knowledge production"*, and *"Achieving an advanced rank in the regional and international academic university rankings"*. To realize such goals, BSU sets the following strategic and operational objectives:

Goals	Strategic objectives	Operational objectives
<b>Goal 1: Global innovative scientific research based on knowledge production</b>	<b>1.1. The development of graduate studies and research sector to keep pace with global developments.</b>	1.1.1. The development of policies relating to graduate studies and scientific research in the light of emerging problems. 1.1.2. The development of policies regarding the procedures to accept and attract foreign/international graduate students.

Goals	Strategic objectives	Operational objectives
	<b>1.2. Implementation of graduate programs with international standards and development of existing programs.</b>	1.2.1. Implementation of graduate programs that help to cope with national problems in the field of applied sciences.
		1.2.2. Implementation of three graduate programs aid to cope with national problems in the field of social science.
		1.2.3. Development of existing graduate programs to keep pace with ongoing developments in science.
	<b>1.3. Development of cognition, skills and attitudes of researchers.</b>	1.3.1. Development of cognition and innovation aspects of the university researchers.
		1.3.2. Increasing the number of researchers holding scholarships, scientific tasks and missions at a rate of 5% per annum.
		1.3.3. Increasing the number of participants in scientific conferences, workshops and seminars at a rate of 10% per annum.

Goals	Strategic objectives	Operational objectives
	<b>1.4. Providing a supportive environment for scientific research.</b>	1.3.4. Building positive attitudes to the researchers about the ethics of scientific research and its role in the overall development of the community.
		1.4.1. Finding solutions to all complaints and problems of researchers and graduate students.
		1.4.2. Establishing of an integrated research city containing centers of excellence providing research activities in specific fields of national and strategic significance.
		1.4.3. The development of university libraries and the digital library in accordance with sustainable developments in research methods.
		1.4.4. Providing of the necessary equipment for research labs to conduct innovative research.
	1.4.5. Activating the services and activities of the Unit of Laboratories and Scientific Instruments.	
	<b>1.5. Increasing funding</b>	1.5.1. Establishing a research endowment fund with a financial return.

Goals	Strategic objectives	Operational objectives
	<b>resources for scientific research.</b>	1.5.2. Increasing the number of researchers receiving research projects funded by foreign sources.
		1.5.3. Supporting the allocation of a budget to support scientific research in the general budget of the university from the ministry of finance.
		1.5.4. Holding and activating partnership agreements with international agencies and international universities to provide supportive opportunities for researchers as grant and scholarship holders.
	<b>1.6. Marketing scientific research regionally and globally.</b>	1.6.1. Supporting the international publication of research work in high impact factor journals.
		1.6.2. Linking research to realistic problems of society and finding solutions through research plans.
		1.6.3. Increasing numbers of university per reviewed and internationally published journals to 4 journals covering all disciplines.

Goals	Strategic objectives	Operational objectives
<b>Goal 2: Achievement of a salient position among regional and international universities.</b>		1.6.4. Creating a unit for scientific marketing in the university.
		1.6.5. Stimulating the activities and services of the unit of university patents
	<b>2.1. Achieving an advanced rank in the regional and international academic university rankings.</b>	2.1.1. The development of scientific research and supporting for international publications.
		2.1.2. Sophisticated university research plan.
	<b>2.2. ....</b>	2.2.1. ....

## The action plan for the development of Graduate Studies and Research Sector

### 1- The development of policies relating to graduate studies and scientific research in the light of emerging problems

The First goal	Global innovative research based on knowledge production
Strategic objective 1/1	The development of graduate studies and research sector to keep pace with global developments
Administrative objective 1/1/1	The development of policies relating to graduate studies and scientific research in the light of emerging problems

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/1/1/1 Formation of a team from the strategic planning members to review the current policies	The existence of modern and certified policies for graduate studies and research sector in line with	- Vice president for graduate studies department - Graduate studies Council of graduate studies -The university strategic planning	January 2015	March 2015	University budget	1
1/1/1/2 Review of existing policies on graduate studies and research sector						
1/1/1/3 Adjusting policies relating to terms and registration fees for postgraduate degrees and policies						



Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
relating to scientific supervision and scientific marketing.	international developments in scientific research and its measures	team members	April 2015	July 2015		
1/1/1/4 Adjusting policies to promote innovation, patents and intellectual property rights and the ethics of scientific research						
1/1/1/5 Informing the new policies for all faculties and university staff.						
1/1/1/6 Holding four seminars to introduce and explain the new policies and ways of application						

2- The development of policies regarding the procedures to accept and attract foreign/international graduate students

The first goal	Global innovative research based on knowledge production
Strategic objective 1/1	The development of graduate studies and research sector policies to keep pace with global development.
Administrative objective 1/1/2	The development of policies regarding the procedures to accept and attract foreign/international graduate students.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/1/2/1 Formation of a team from the strategic planning members to review current policies on accepting international students	The existence of modern and supported policies that encourage more international/foreign students to register to graduate degrees in the university.	-Vice president for graduate studies	April 2015	May 2015	University Budget	2
1/1/2/2 Review of existing policies on graduate studies and research sector		-Graduate studies department				
1/1/2/3 Adjusting policies relating to terms and registration fees of		-Council of graduate studies				

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
international students and measures to attract them.		-Strategic planning team				
1/1/2/4 Informing the new policies for all faculties and university staff and all target groups.			July 2015	August 2015		
1/1/2/5 Holding three seminars to introduce and explain the new policies and way of their application.						

### 3- Implementation of graduate programs that help to cope with national problems in the field of applied sciences

First goal	Global innovative research based on knowledge production
Strategic objective 1/2	Implementation of graduate programs with international standards and development of existing programs.
Administrative objective 1/2/1	Implementation of graduate programs that help to cope with national problems in the field of applied sciences

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/2/1/1 Studying the emerging needs of society and the labor market for new programs in the graduate studies in applied sciences through a number of four workshops.	List of community needs in the medical, agricultural and medical fields.	-Vice president for graduate studies. -Council of graduate studies.	2015	2019	-University Budget -Research endowment -Special funds	4
1/2/1/2 Introduction of two graduate programs in medical sciences (Hepatitis, Nanotechnology applications in the medical field).	-Master program in Hepatitis -Postgraduate diploma in nanotechnology applications in the medical field.	-Vice president for graduate studies. -Council of graduate studies. -Colleges of Medicine, Pharmacy and Dentistry.				

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/2/1/3 Development of a joint program (between the faculties of Agriculture and veterinary medicine) in nanotechnology applications in agriculture and food.	Master program in nanotechnology applications in agriculture and food.	-Vice president for graduate studies. -Council of graduate studies, -Colleges of veterinary Medicine and agriculture.				
1/2/1/4 Introduction of one program in nanotechnology applications in engineering sciences.	Master program in nanotechnology applications in engineering sciences.	Vice president for graduate studies -Council of graduate studies -Faculties of Science and Engineering				

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/2/1/5 Introduction of four diploma programs in graduate studies, faculty of science in: <ul style="list-style-type: none"> <li>- Laser Applications</li> <li>- Applied Molecular Biology</li> <li>- Structural chemistry</li> <li>- Nanophotonic</li> </ul>	Innovative programs	-Vice president for graduate studies -Council of graduate studies -Faculty of science	2015	2019		1
1/2/1/6 Development of programs (Diploma-Master-PhD) at the graduate school of advanced science in new and renewable energy.	Innovative programs	-Vice president for graduate studies -Council of graduate studies	2015	2019		1
1/2/1/7 Development of programs (Diploma-Master-PhD) at the graduate school of advanced science in Medicinal Chemistry	Innovative programs	graduate studies - Graduate school of advanced	2015	2019		1

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/2/1/8 Development of programs (Diploma-Master-PhD) at the graduate school of advanced science in Cement	Innovative programs	science	2015	2019		1

**4 - Implementation of three graduate programs help to cope with national problems in the field of social sciences**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/2	Implementation of graduate programs with international standards and development of existing ones.
Administrative objective 1/2/2	Implementation of three graduate programs help to cope with national problems in the field of social science

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
-1/2/2/1 studying the emerging needs of society and the labor market for new programs in graduate studies in social sciences through 3 workshops.	List of communal needs in humanities and social sciences	-Vice president for graduate studies -Council of graduate studies	2016	2019	University budget	4
1/2/2/2 Introduction of 3 graduate programs in economics and commercial sciences.	-Two new programs in economics and commercial sciences	-Vice president for graduate studies -Council of graduate studies -Faculties of commerce-economics and political sciences				
1/2/2/3 Introduction of one graduate program on effect of revolution on foreign policy.	A new graduate program studying the impact of	-Vice president for graduate studies -Council of graduate studies				



Activities	Performance	Implementation official	Period		Funding sources	Order of priority
	indicators		From	To		
	revolutions on foreign policy.	-Faculty of economics and political sciences				

**5- Development of existing graduate programs to keep pace with ongoing developments in science**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/2	Implementation of graduate programs with international standards and development of existing ones.
Administrative objective 1/2/3	Development of existing graduate programs to keep pace with ongoing developments in science.

Activities	Performance	Implementation official	Period		Funding sources	Order of priority
	indicators		From	To		

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/2/3/1 Formation of a committee to study all existing graduate programs in the university.	The existence of sophisticated postgraduate programs to meet the need of labor market.	-Vice president for graduate studies -Council of graduate studies	June 2015	September 2015	University budget	3
1/2/3/2 Studying graduate programs in various faculties of the university						
1/2/3/3 Development of existing programs depending on the developments and changes in the ongoing communal needs at the local, regional and global levels.						
1/2/3/4 Development of courses to suit the development of the programs.						

## 6- Development of cognition and innovation aspects of the university researchers.

The first goal	Global innovative research based on knowledge production
Strategic objective 1/3	Development of cognition, skills and attitudes of researchers
Administrative objective 1/3/1	Development of cognition and innovation aspects of the university researchers

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/3/1/1 Designing and conducting monthly training programs for young researchers in the university in "creative thinking in scientific research" for one year.	Increasing the number of innovative researches. Raising commitment rate to intellectual property rights.	Vice president for graduate studies	2015	2019	Special funds	4
1/3/1/2 Holding monthly training programs on intellectual property rights for all researchers in the						

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
university for a year.						
1/3/1/3 Holding monthly training programs in the international publication for all researchers in the university for a year.	-Increasing the rate of international publication in the university.					
1/3/1/4 Holding monthly training programs in the preparation of competitive projects for all researchers in the university for a year.	-Raising numbers of holders of scientific projects.					
1/3/1/5 Holding monthly training programs in managing research team for all researchers in the university.						

7- Increasing the number of researchers holding scholarships, scientific tasks and missions at a rate of 5% per annum.

The first goal	Global innovative research based on energy production
Strategic objective 1/3	Development of cognition, skills and attitudes of researchers
Administrative objective 1/3/2	Increasing the number of researchers holding scholarships, scientific tasks and missions at a rate of 5% per annum

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/3/2/1 Organization of 6 training courses and seminars on how to get grants, scientific tasks and missions.	Raising the number of holders of scholarships and foreign missions.	-Vice president for graduate studies -Department of cultural relations. -Department of international relations.	January 2015	December 2015	-Special funds University budget	1
1/3/2/2 Holding and activating partnership agreements with various funding agencies such as (DAAD-EU-STDF).						

8- Increasing the number of participants in scientific conferences, workshops and seminars at a rate of 10% per annum.

The first goal	Global innovative research based on knowledge production.
Strategic objective 1/3	Development of cognition, skills and attitudes of researchers
Administrative objective 1/3/3	Increasing the number of participants in scientific conferences, workshops and seminars at a rate of 10% per annum.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/3/3/1 Increasing financial allocations for participation in scientific conferences, workshops and seminars at a rate of 10% per annum.	Increased numbers of recipients of conferences, workshops and scientific seminars.	-University Council -Vice President for graduate studies -Council of graduate studies.	December 2015	December 2019	-Special funds -University budget	1

**9- Building positive attitudes to the researchers about the ethics of scientific research and its role in the overall development of the community.**

The first goal		Global innovative research based on knowledge production
Strategic objective 1/3		Development of cognition, skills and attitudes of researchers
Administrative objective 1/3/4		Building positive attitudes to the researchers about the ethics of scientific research and its role in the overall development of the community.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/3/4/1 Formation of a team to reform rules and ethics of scientific research.	High rate of commitment to the ethics of scientific research.	Vice president for graduate studies and scientific research.	January 2015	December 2015	Special funds	1
1/3/4/2 Adoption of the rules and the ethics and announcing them to all researchers.						
1/3/4/3 Holding monthly training programs in "Ethics in						

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
scientific research" for one year.						
1/3/4/4 Holding two seminars on the role and importance of scientific research to the prosperity of the community.						

**10- Finding solutions to all complaints and problems of researchers and graduate students.**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/4	Providing a supportive environment for scientific research.
Administrative objective 1/4/1	Finding solutions to all complaints and problems of researchers and graduate students.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		



Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/1/1 forming a team to formulate a mechanism to deal with complains and proposals of researchers and graduate students and replying.	Increased rate of satisfaction of graduate students and researchers.	-Vice president for graduate studies. -Vice deans for graduate studies.	March 2015	May 2015	Special funds	1
1/4/1/2 The development of private complaints boxes for graduate studies and scientific research in obvious places in addition to the electronic boxes.						
1/4/1/3 Periodic meetings with graduate students and researchers to discuss the most important problems.						

**11- Establishment of an integrated research city containing centers of excellence providing research activities in specific fields of national and strategic significance.**

The first goal	Global innovative research based on knowledge production.
Strategic objective 1/4	Providing a supportive environment for scientific research.
Administrative objective 1/4/2	Establishment of an integrated research city containing centers of excellence providing research activities in specific fields of national and strategic significance.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/2/1 Setting up a working group to develop a perception for the research city, conditions of the research centers and requirements to apply for funding.	-Adopted terms and conditions of centers of excellence.	University council -Vice president for graduate studies -Formed work team.	January 2015	December 2019	-University Budget -Foreign funders -Special funds	1
1/4/4/2 Announcing a call for proposals for funding the foundation of research centers of Excellence in each one of the	-Launch announcement for					

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
required modern disciplines.	research centers.					
1/4/2/3 examining proposals by the previously established committee.						
1/4/2/4 Finding suitable funding for the establishment of three centers of excellence in various fields annually.						
1/4/2/5 Establishing a research center of excellence in modern and contemporary research applications in the industrial and medical fields (3 floors building on an area of 1000 square meters).	Research center of excellence for novel applications in medicine and industry.	Vice president for graduate studies – Faculty of Medicine	January 2015	December 2019	University Budget Foreign funders Special funds	

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/2/6 Establishing a research center of excellence in food safety (3 floors building of 800 square meters).	Reference lab for food inspection.	Vice president for graduate studies – Faculty of veterinary medicine	January 2015	December 2019		
1/4/2/7 Establishing a research center of excellence for medical and industrial uses of aromatic plants.	Research center of excellence of aromatic plants and their uses in medicine.	Vice president for graduate studies- Faculties of pharmacy and science	January 2015	December 2019		
1/4/2/8 Establishing a research center of excellence for research on endemic and epidemic diseases (Hepatitis, etc..) (3 floors building on an area of 1200 square meters).	research center of excellence for research on endemic and epidemic diseases	– Vice president for graduate studies -Faculty of Medicine	January 2015	December 2019		

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/2/9 Establishing of a research center of excellence for good governance of water and its purification (3 floors building of 800 square meters).	research center of excellence for good governance of water and its purification	Vice president for graduate studies– Faculty of science- Faculty of Agriculture	January 2015	December 2019		
Establishing of a research center of excellence for new and renewable energy research (3 floors building on an area of 1200 Square meters),	research center of excellence for new and renewable energy research	Vice president for graduate studies– Faculty of Science	January 2015	December 2019		
1/4/2/11 Establishing of a research center of excellence for development of livestock (3 storey building on an area of 1200 square meters).	Research center of excellence for development of livestock	Vice president for graduate studies– Faculties of Veterinary Medicine and Agriculture	January 2015	December 2019		

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/2/12 Establishing of a research center of excellence for manufacturing of new drugs for epidemic and endemic diseases (3 floors building on an area of 800 square meters).	Research center of excellence for manufacturing of new drugs	Vice president for Graduate studies –Faculty of Pharmacy	January 2015	December 2019		
1/4/2/13 Establishing of a research center of excellence in social science (political, economic and social issues) (3 floors building on an area of 1300 square meters).	research center of excellence in social science	Vice president for graduate studies – Faculties for Social Sciences and Humanities	January 2015	December 2019		
1/4/2/14 Establishing of a research center of excellence to develop new applications for the management of production and service enterprise systems (3 floors building on an area of 800 square meters).	Research Center of excellence on Accounting Research	Vice president for graduate studies – Faculty of Computer Sciences	January 2015	December 2019		

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/2/15 Establishing of a research center of excellence in automation and control (3 floors building on an area of 900 square meters).	Research center of excellence in automation and control	Vice president for graduate studies – Faculties of Engineering and Industrial Education	January 2015	December 2019		1
1/4/2/16 Establishing of a research center of excellence in environment and water pollution (3 floors building of 700 square meters).	Research center of excellence for Research on Environment and water.	Vice president for graduate studies – Faculty of Sciences				

12- The development of university libraries and the digital library in accordance with sustainable developments in research methods

The first goal	Global innovative research based on knowledge production
Strategic objective 1/4	Providing a supportive environment for scientific research.
Administrative objective 1/4/3	The development of university libraries and the digital library in accordance with sustainable developments in research methods

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			from	To		
Forming work groups for comparing libraries in the faculties and the central library with the standards of the national organization for quality assurance and accreditation (NORMs)	Fulfillment of the standards of the national Authority of quality assurance and accreditation regarding libraries.	Quality assurance center	January 2015	December 2016	University Budget Faculties	3
1/4/3/2 Developing the faculty libraries and fulfillment of						



Activities	Performance	Implementation	Period		Funding sources	Order of priority
	indicators		official	from		
standards of the national authority for quality assurance and accreditation	Increasing the number of visitors to the digital libraries					
1/4/3/3 Supplying libraries with recent editions of books and scientific journals on a regular basis.						
1/4/3/4 Automation of the libraries using one of the MIS systems.		Management information systems	January 2015	December 2015	ICTP	1
1/4/3/5 Increasing the number of beneficiaries of the university digital library services to 100%.	Increased numbers of digital library users.	University Digital Library Project	January 2015	June 2015	ICTP	1
1/4/3/6 Establishing a central library on the new campus of the university (Buildings:	Central Library	President of the university	2015	2019	Estimated budget	1

Activities	Performance	Implementation official	Period		Funding sources	Order of priority
	indicators		from	To		
3floors on 4800 square meters).		Vice president for graduate studies			Special funds	

**13- Provision of the necessary equipment for research labs to conduct innovative scientific research**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/4	Providing a supportive environment for scientific research.
Administrative objective 1/4/4	Provision of the necessary equipment for research labs to conduct innovative research

Activities	Performance	Implementation official	Period		Funding sources	Order of priority
	indicators		From	To		
1/4/4/1 Formation of a working group including director of unit of laboratory and scientific instruments unit to	Certified team	Vice president for graduate studies	January 2015	December 2019	University Budget	2

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
define the most advanced devices and equipment in each discipline, needed for innovative research.		Laboratory and scientific instruments Unit			Special funds	
1/4/4/2 Development of two labs in each faculty on a yearly basis and supplying them with modern facilities.	Development of research labs					
1/4/4/3 Encouraging researchers to get scientific projects such as (Capacity building-STDF) or other agencies through holding 4 introductory seminars and/or workshops.	Increasing externally funded research projects	Vice president for graduate studies International relations unit	January 2015	December 2016	Special funds	1

## 14- Activation of services and activities of unit of laboratories and scientific instruments

The first goal	Global innovative research based on knowledge production
Strategic objective 1/4	Providing a supportive environment for scientific research.
Administrative objective 1/4/5	Activation of services and activities of unit of laboratories and scientific instruments.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/4/6/1 A work team accounting for all scientific equipment and research labs in the university, providing scientific data lists on a website namely Bank of laboratories and scientific instruments (The device- Use- person in charge- Lab title).	Website containing data on laboratories and scientific instruments	Unit of laboratories and scientific instruments Electronic gate/portal project	January 2015	June 2015	University budget Special funds	1
1/4/6/2 Contracting a maintenance company to be responsible for the	Certified written	Unit of laboratories and	January 2015	December 2019		1

maintenance of scientific instruments on a regular basis.	contract	scientific instruments				
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**15- Establishment of a research endowment fund with a financial return**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/5	Increasing funding sources for scientific research
Administrative objective 1/5/1	Establishment of a research endowment fund with a financial return

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/5/1/1 Form a team to formulate a proposal submitted to the Minister of Higher Education and the prime minister to agree to the establishment of research endowment fund with a financial return.	A research endowment fund with a financial return	President of the university Vice president for graduate studies	January 2015	June 2015	Special funds	1

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/5/1/2 Presenting the proposal to the minister of higher education and the prime minister		Director of the research endowment fund				
1/5/1/3 Publishing and announcing using various mass media about the objectives of the fund and its revenues and ways to make donations of various civil society organizations						

**16- Increasing the number of researchers receiving research projects funded by foreign sources**

The first goal	Global innovative research based on knowledge production
Strategic objective 5/1	Increasing funding sources for scientific research
Administrative objective 1/5/2	Increasing the number of researchers receiving research projects funded by foreign sources

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/5/2/1 Activate the unit supporting and financing projects for identification of donors through two seminars per annum.	Increased number of researchers receiving research projects funded by foreign sources	Project support and funding unit	2015	2019	Special funds	4
1/5/2/2 Organization of two workshops per year for training on how to apply for competitive projects and funding sources.			2015	2019		

**17- Supporting the allocation of a budget to support scientific research in the general budget of the university from the ministry of finance**

<b>The first goal</b>	<b>Global innovative research based on knowledge production</b>
<b>Strategic objective 1/5</b>	<b>Increasing funding sources for scientific research</b>
<b>Administrative objective 1/5/3</b>	<b>Supporting the allocation of a budget to support scientific research in the general budget of the university from the ministry of finance</b>

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/5/3/1 Organizing a team of members of the university's strategic planning for the drafting of a proposed annual budget for scientific research to be included in the university budget	The allocation of a budget for scientific research within the university budget	Vice president for graduate studies Strategic planning team	May 2015	June 2015	University budget	2
1/5/3/2 Presenting the proposal to the supreme council of universities for submission to the ministry of finance						

**18- Holding and activating partnership agreements with international agencies and international universities to provide supportive opportunities for researchers as grant and scholarship holders.**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/5	Increasing funding sources for scientific research
Administrative objective	Holding and activating partnership agreements with international agencies



1/5/4

and international universities to provide supportive opportunities for researchers as grant and scholarship holders.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/5/4/1 Activating the unit of international relations and holding of partnership agreements with international agencies and other universities.	New agreements with activation of existing ones	Director of international relationships unit	January 2015	December 2015	Special funds	3
1/5/4/2 A review of previously held agreements and starting their activation.						

**19- Supporting the international publication of research work in high impact factor journals**

The first goal	Global innovative research based on knowledge production.
Strategic objective 1/6	Marketing scientific research regionally and globally
Administrative objective 1/6/1	Supporting the international publication of research work in high impact factor journals

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/6/1/1 Encouraging researchers to international publication through a yearly informative seminar and work shops (4 per year) on how to write and publish internationally.	Higher rate of international publications	Vice president for graduate studies Unit of publishing and scientific awards	January 2015	December 2019	Special funds Research development center	1
1/6/1/2 Increasing the financial reward for internationally published research in high						

Activities	Performance	Implementation	Period		Funding sources	Order of priority
	indicators		official	From		
impacted journals.						
1/6/1/3 Provision of annual cash prizes for university researchers publishing in top journals in their disciplines.						
1/6/1/4 Supporting research publication from graduation projects of undergraduate students and provision of financial rewards for students and supervising faculties according to the impact factor of the journal.	<b>Increased rate of publication from graduation projects of undergraduate students</b>					

20- Linking research to actual problems of society and finding solutions through research plans

The first goal	Global innovative research based on knowledge production
Strategic objective 1/6	Marketing scientific research regionally and globally
Administrative objective 1/6/2	Linking research to realistic problems of society and finding solutions through research plans

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/6/2/1 Management of the university research plan through the strategic planning team.	A research plan according to the surrounding reality.	Strategic planning team Council of graduate studies	January 2015	December 2019	-University budget -Special funds -Research endowment fund	1
1/6/2/2 Periodical review of the university research plan and updating it according to societal/communal developments.						

Activities	Performance	Implementation	Period		Funding	Order of priority
	indicators	official	From	To	sources	
1/6/2/3 Development of rules and mechanisms obligating researchers to work within the university research plan						
1/6/2/4 Distribution of the recommendations of scientific research to targeted community institutions						

**21- Increasing numbers of university peer reviewed and internationally published journals to 4 journals covering all disciplines.**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/6	Marketing scientific research regionally and globally
Administrative objective 1/6/3	Increasing numbers of university per reviewed and internationally published journals to 4 journals covering all disciplines.

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/6/3/1 Activating unit of publishing and scientific awards	4 scientific periodicals/journals for reviewing and international publishing	-Vice president for graduate studies -Unit of publishing and scientific awards	April 2016	December 2016	_University budget -Special funds -Research endowment	3
1/6/3/2 Establishing two internationally published journals in addition to the current two and their publication via one of the international publishers.						

22- Creating a unit for scientific marketing in the university

The first goal	Global innovative research based on knowledge production
Strategic objective 1/6	Marketing scientific research regionally and globally
Administrative objective 1/6/4	Creating a unit for scientific marketing in the university

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/6/4/1 Forming a working group to develop a vision for the activities and services of marketing unit for scientific research	Presence of a marketing unit for scientific research for benefiting sides and searching new funding sources for new/novel research ideas.	Vice president for graduate studies	January 2016	March 2016	-Special funds -Research endowment	3
1/6/4/2 Announcing the need for a manager of the unit of scientific marketing from the university faculties.						
1/6/4/3 Choosing the headquarter and the administrative body of the unit.						

**23- Stimulating the activities and services of the unit of university patents**

The first goal	Global innovative research based on knowledge production
Strategic objective 1/6	Marketing scientific research regionally and globally
Administrative objective 1/6/5	Stimulating the activities and services of the unit of university patents

Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
1/6/5/1 Providing financial and technical support to students and faculty members for patent registration.	Increased numbers of patent registrations form the university to reach an annual rate of 100 patents.	Vice president for graduate studies and scientific research Unit of patents	January 2015	December 2019	-Special funds -Research endowment	3
1/6/5/2 Supporting basic education students for patent registration						
1/6/5/3 Increasing the numbers of patents registered by faculties and students to reach 50 patents per year.						

24- The development of scientific research and supporting for international publication

The second goal	Achievement of a salient position among regional and international universities
Strategic objective 2/1	Achieving an advanced rank in the regional and international academic university rankings.
Administrative objective 2/1/1	The development of scientific research and supporting the international publications



Activities	Performance indicators	Implementation official	Period		Funding sources	Order of priority
			From	To		
2/1/1/1 Formation of a team to determine the requirements of research labs in faculties of the university to develop the infrastructure and its processing for international accreditation	A list of requirements for research labs development	Scientific departments	January 2015	December 2015	-University budget -Research endowment _Civil society	1
2/1/1/2 Annual development of research labs in three faculties.	Numbers of developed and reference /accredited labs		2015	2019		1
2/1/1/3 Supporting exchange of faculty members.	Numbers of scholarship holding faculty members and numbers of visitors	Administration of the university and faculties	2015	2020		1
2/1/1/4 Developing joint research projects with governmental agencies.	Numbers of participating units and cooperation agreements	Administrations of faculties	2015	2020		2

25- Sophisticated university research plan

The second goal	Achievement of a salient position among regional and international universities
Strategic objective 2/1	Achieving an advanced rank in the regional and international academic ranking of universities
Administrative objective 2/1/2	Sophisticated university research plan

Activities	Performance indicators	Implementation official	Period		Funding source	Order of priority
			From	To		
2/1/2/1 Forming a team to develop a five-years university research plan	University research plan	Vice president for scientific research	January 2015	October 2015	University budget	1
2/1/2/2 Developed scientific departments research plans in the light of the university research plan	Numbers of developed research plan for scientific departments	Scientific departments	January 2015	October 2015	STDF	1
2/1/2/3 Supporting joint research projects between faculties as a part of the university research plan	Numbers of joint research projects	Scientific departments	2015	2020		2

## The Bodies Participating in Implementation of the Research Plan

This Research Plan has been the result of the efforts of many bodies and partners as is shown below:

- The Senior Academic Management of the University and the University Council.
- The Working Team who works in the Research Plan, consisting of a number of university teaching staff who have an expertise in planning and scientific research.
- A gathering data working team from extramural organizations.
- Representatives of academic majors (Deans, Vice-Deans, Chairpersons of Academic Departments, the teaching staff and their assistants in the faculties).
- Representatives of Establishments of Productions in the Industrial Areas in the Governorate of Beni-Suef.
- Representatives of service organizations of the local community (Ministry of Education, Health, etc.)

## The Methodology Followed in Preparing the Research Plan

This Strategic Research Plan of the University of Beni-Suef has been prepared according to the following steps:

- ❖ Forming a teamwork from inside the University "The Team of Strategic and Research Planning".
- ❖ Organizing a workshop to prepare The Strategic Research Plan.
- ❖ Diagnosing the status quo of the university via a quartet analysis to determine the points of strength, the points of weakness, the opportunities and challenges.
- ❖ Extracting the main elements of distinction (Distinction Attributes) which determine the features, vision and message of the University.
- ❖ Rethinking the formulation of the vision.
- ❖ Rethinking the university vision in a way that guarantees the faithful expression of this vision, and represents the dimensions of the suitable environment, the sufficient mechanisms of transition from the present status to the target aim.
- ❖ Defining the aims of the strategic Research Plan, which the university tries to achieve via frequent meetings of the Planning Committee.

- ❖ Accrediting the vision, the message, and the aims.
- ❖ Defining the appropriate strategies, which will contribute in achieving the strategic and research aims.
- ❖ Preparing the programs, which will be implemented within the framework of The Strategic Research Plan, and determining the time stages, and the body responsible for implementation.
- ❖ Building executive work planning for scientific sectors.
- ❖ Preparing threats strategies.
- ❖ Preparing a matrix of standards and indicators to measure performance at the university.
- ❖ Preparing a draft of the research plan, and discussing it with the committee of Strategic Planning to be ratified.
- ❖ Submitting the plan to the University Council to be ratified in its final version.

## Elements of Executing the Research Plan

There are many specific elements to execute the Research Plan:

### 1) Sources of the Research Plan topics.

Beni-Suef University seeks to set up a scientific research plan through the establishment of the Bank of research problems (research topics), which draws these topics by monitoring the nature of the problems facing the following five institutions:

1. Service Organizations (Governmental organizations of Education, Health, and Justice .... etc.).
2. Voluntary Organizations (Societal Charity Organizations).
3. Production Organizations (Factories and Production Companies at the Industrial Cities of Beni-Suef Province).
4. National Organizations (The National Council of Maternity and Childhood – Academy of Scientific Research & Technology – Social Development Fund – Organization of Urban Societies – Ministry of Electricity and Energy).
5. Academic University Departments (the various academic departments in the Faculties of the University, and the research interests of their staff members).

## **2) The Research City:**

The foundation stone has been put for building the Research City of Beni-Suef University, already working on creating a center for Laser research. The city will be the first Research City of its kind in an Egyptian University; it will include several research centers, which serve the community of researchers in the Egyptian universities.

## **3) Centers of Excellence:**

- 1- Supporting creating Centers of Research Excellence to carry out research and academic activities, concentrating on the specific fields that have strategic and national importance.
- 2- Supporting establishing joint programs with the distinguished universities and centers that possess relations with Excellence Centers, seeking to join the international coalition in the field of innovation and entrepreneurship.

## **4) Bank of Laboratories and Scientific Instruments:**

This bank has been established by the Unit of Laboratories and Scientific Instruments that has been recently created. After establishing this unit, Beni-Suef University had proposed creating a National Bank of Laboratory and Scientific Instruments at the level of all Egyptian universities, the proposal

has been approved by the Ministry of Higher Education who requested the Vice-President of Beni-Suef University for Graduate Studies and Research to head a Committee to establish The National Bank for Laboratory and Scientific Instruments, according to the submitted proposal, which had been recently founded.

The Bank's website: <http://www.nrl.eg/UniversityDetails.aspx>



## Some of the contents of Bank of Laboratories and Scientific Instruments, BSU

### 1. Faculty of Veterinary Medicine

#### 1.1. Central Laboratory:



UV/VIS Spectrophotometer



Fluorescent Microscope with LCD Screen



Cooling centrifuge



Refrigerated Incubator



Cooling Centrifuge



Probe Sonicator with insulation cabinet

## 1.2. Histopathology Laboratory:



Automatic immunostainer



Sliding microtome



PCR Thermal cycler

2. Faculty of Graduate Studies for Scientific Research

2.1. Central Laboratory:



HPLC/MS



Concrete compression machine



Atomic absorption spectrophotometer

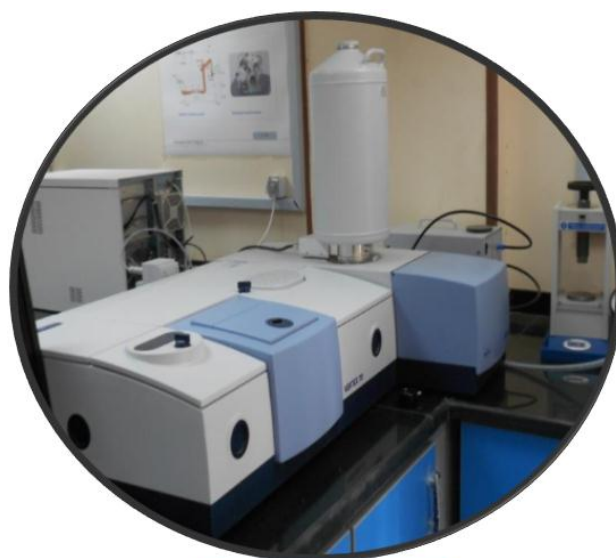


Gas chromatography-Mass spectrometry





X-ray Diffraction



FT-Raman and FT-IR

## 2.2. Nano-Research Laboratory:



Gas Chromatography



Ball Mill



**Spectrophotometer**



**Solar Simulator**



**Microwave  
Reaction System**



**Probe Sonicator with  
insulating incubator**

3. Faculty of Industrial Education

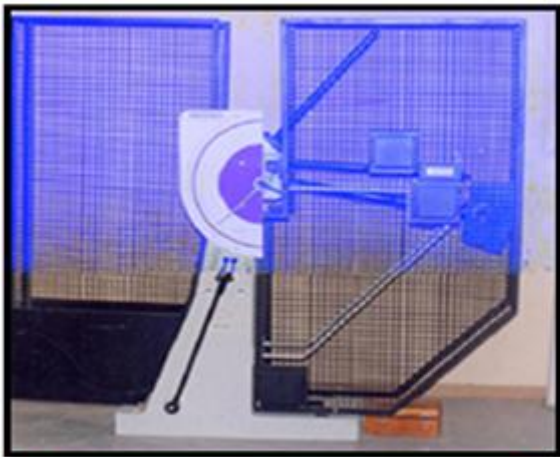
3.1. Laboratory of Material examination:



Hardness test device



General test Machine



Impact test device



Impact test device



Micro hardness testing device



#### 4. Faculty of Engineering

##### 4.1. Laboratory of Concrete Materials:



**Schmidt Hammer**



**Concrete core  
sampler**

#### 5. Faculty of Pharmacy

##### 5.1. Central Laboratory:



**Preparative High Performance  
Liquid Chromatography**



**Gas Chromatography**

5.2. Laboratory of Pharmaceutics:

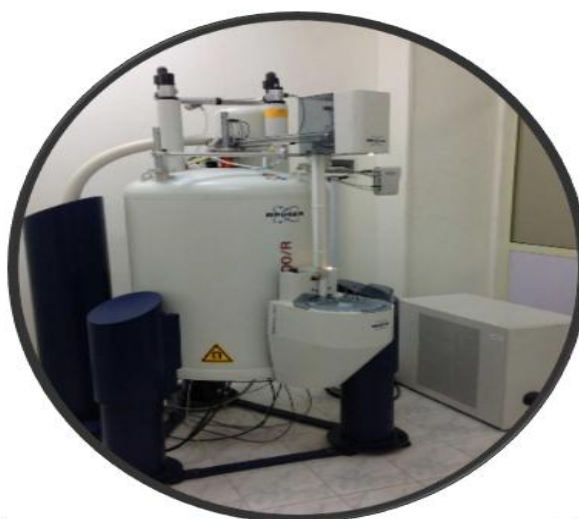


**Rotary Evaporator**



**Dissolution System**

5.3. Resonance Laboratory:



**Nuclear Magnetic Resonance (NMR)**

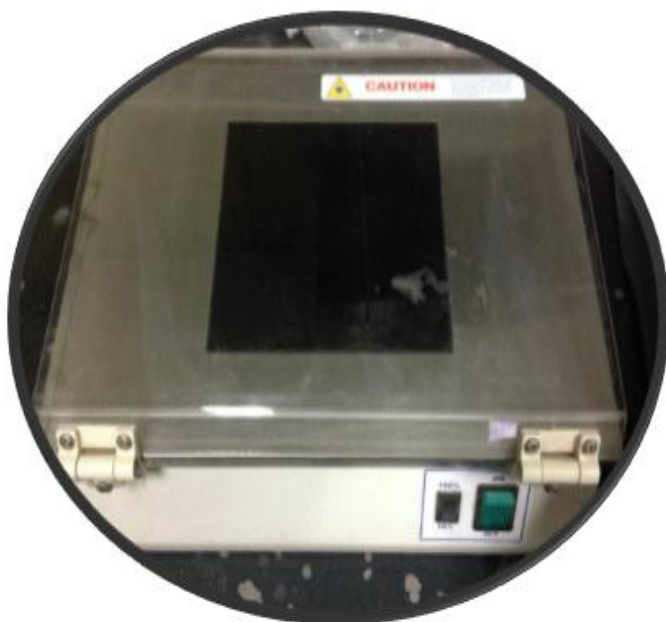


## 5.4. Laboratory of Clinical Pharmacy:

**Solid –phase extraction station****Evaporation station**

## 5.5. Microbiology Laboratory

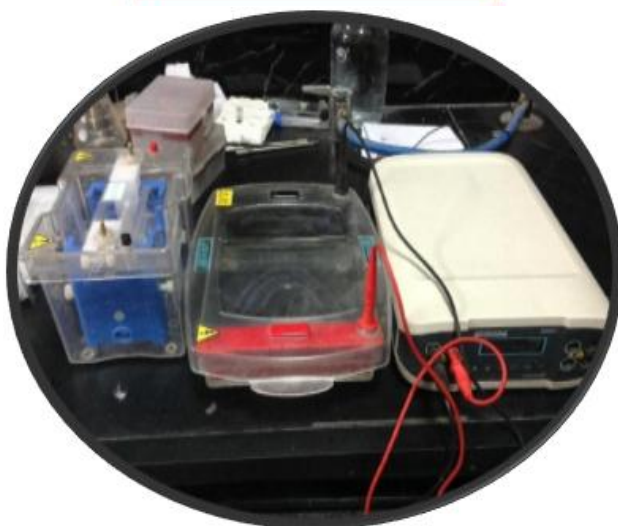
**Aerobic refrigerator incubator****PCR**



**UV Transilluminator**



**ELISA auto reader**



**Gel Electrophoresis system**



**Shaker Incubator**

6. Faculty of Science

6.1. Laboratory of Micro-Analysis Center



Transmission Electron Microscopes



Scanning Electron Microscope



Spectrophotometer



Fluorescent Microscope





**PCR**



**ELISA Unit**

### 6.2. Biochemistry Laboratory:



**Incubator**



**UV Spectrophotometer**

6.3. Laboratory of Diabetes and Blood Research:



Cooling Centrifuge



Safety Cabinet

7. Faculty of Arts

7.1. Geography Laboratory:



Total Station



Complete Weather Forecast Station

## 5) Unit of Scientific Publications and University Awards:

### Most important achievements:

1- Creating the Beni-Suef Journal of Applied Sciences for the publication of researches in the fields of basic, medical, pharmaceutical, and Engineering (Beni-Suef University Journal of Basic and Applied Sciences), with an international standard serial number (ISSN) from the Academic of Scientific Research (the Global Network of Scientific and Technological Information), and creating a website for it in [www.scopemed.org](http://www.scopemed.org), forming a committee of editors from inside and outside the university, who are highly qualified people. Currently, the University has got the approval of the President of the Academy of Scientific Research to enlist this journal as one of the Journals of the international publisher Elsevier, it is now one of the Elsevier's journals on the following website:

[http://www.journals.elsevier.com/beni-suef-university-journal-of-basic-and-applied-sciences /](http://www.journals.elsevier.com/beni-suef-university-journal-of-basic-and-applied-sciences/)

2- Establishing the University Journal of Accounting and Auditing in corporation with the Association of Arab Universities (Association of Arab University Journal of Accounting and Auditing), and getting its international standard serial number (ISSN) from the Academy of

Scientific Research (the Global Network of Scientific and Technological Information), forming a committee of editors from inside and outside the university, who are highly qualified people. Currently, the first number is being finished to receive papers to be refereed by highly qualified professors in their fields.

**6) Innovations, Patency and Research Excellence Center Support Unit**

**7) Scientific Marketing Unit.**

**8) Sources of Research Plan Funding:**

There are many sources of funding as shown in the following:

**8.1. Establishment of *the Research Endowment Fund*:**

Beni-Suef University is now working to change from a transmitter of knowledge to a Producer of Knowledge University. It is also keen to work on benefiting from this knowledge in all fields, so as to face all the problems facing the establishments of our country, and hinders its progress. This aim may be fulfilled by the following strategies:

- An ambitious university administration that encourages going to the new areas of scientific, basic, applied, human, and social research.
- A good research plan that contains all the problems facing the establishments of the country.

- A distinguished group of researchers.
- Sources of funding that provide permanent necessary funding to carry out scientific researches.

**Sources of Research Endowment:**

- 1- Revenues and Yielding of the Research Endowment.
- 2- Returns on cash deposits.
- 3- Gifts, bequests and donations accepted by the University Board.
- 4- Any other proceeds of the activity of the Endowment, its management, investment of its wealth.

**8.2. The Research Budget**

**8.3. Center of Research Development in Beni-Suef University.**

**8.4. Science & Technology Development Fund (STDF).**

**8.5. Sources of International Funding such as (The European Commission ... etc.)**

**9) Developed and Integrated Libraries.**

**10) Maintenance of laboratories and research instruments.**

**11) Mechanics of Research Plan Marketing:**

The research plan will be marketed through Scientific Marketing Unit and Research-Industry Link Unit.

**12) Research – Industry Linkage.**

**13) Unit of Training and Conference Organizing.**



**14) Center of Human Resources Development** (formerly; Faculty and Leadership Development Center, FLDC).

**15) International Co-operation and Foreign Relations:**

### **Local, Regional and International Agreements and Partnerships**

The University has signed up several local, regional, and international agreements and partnerships as follows:

#### **1. Internal Agreements**

##### ***The Second Part of the Contract***

- Egypt (Zewail's City of Sciences and Technology)
- Egypt: 6<sup>th</sup> October University, and it includes: Faculty of Engineering, Faculty of Scientific Systems and Computers, Medical and Applied Sciences, Pharmacy, Education, Economy and Administration, Medicine, Languages and Translation, Physio-therapy.
- Egypt (SIFE Organization)

#### **2. Foreign Agreements:**

##### ***The Second Part of the Contract***

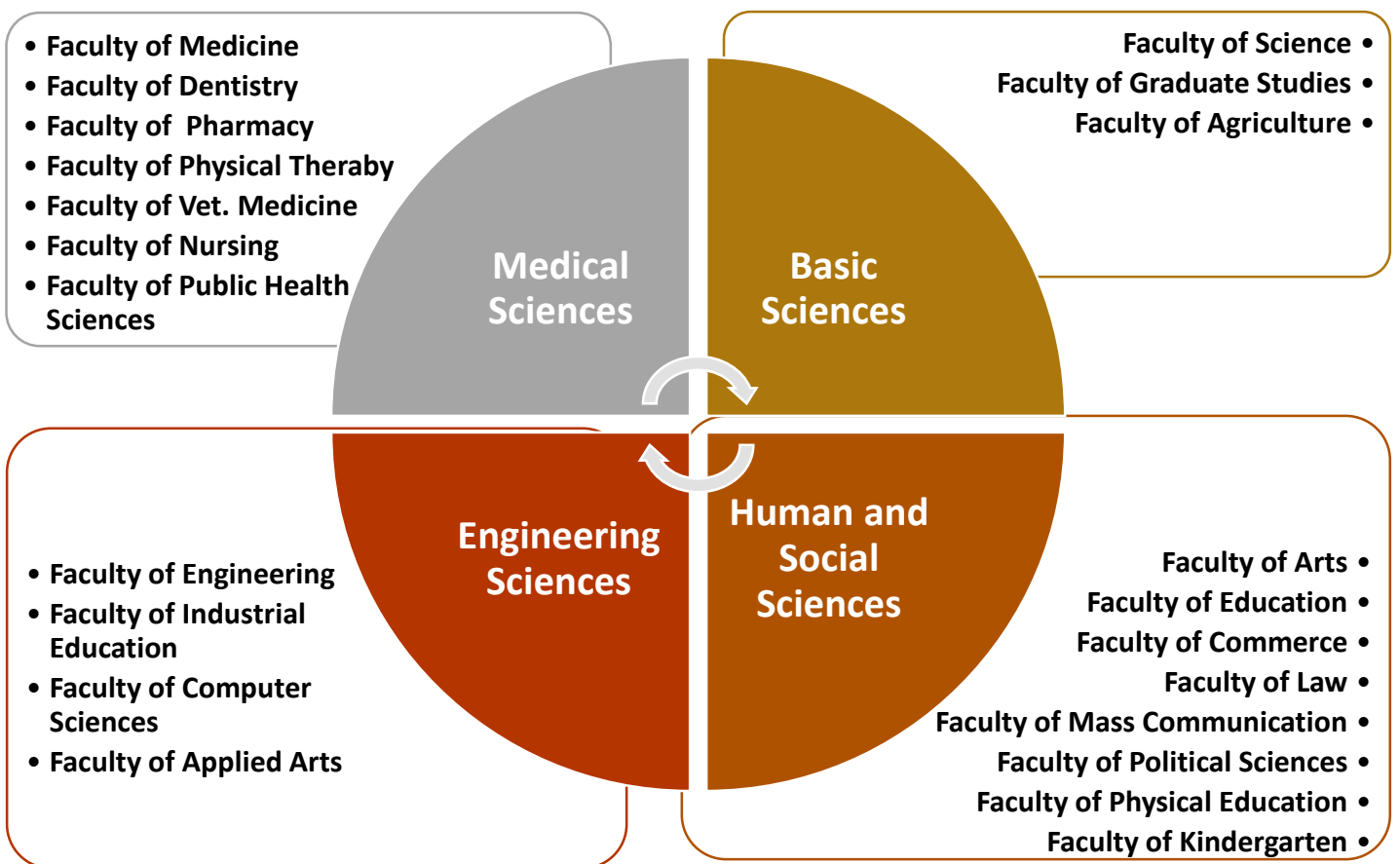
- France (University of Lumiere Leon)
- Korea (University of Sang Mung)
- Korea (Chonnam National University CNU, Kwangju).
- Incheon University.

- Spain (University of Granada)
- Canada (University Quebec in Montreal)
- Africa (Union of Arab and UN Investments for Fighting Aids)
- Spain (University of Mueguil Arnadeth)
- Britain (University of Northumberia)
- Greece (University of Aega)
- Azerbaijan (University of Cos)
- Kingdom of Saudi Arabia (King Faisal University)

## BSU Research Fields

The research fields of Beni-Suef University are categorized into four major research areas as follows:

- 1- Basic Sciences
- 2- Human and Social Sciences
- 3- Medical Sciences
- 4- Engineering Sciences



## 1. The Research Fields of Basic Sciences

- Material science & Nanoscience
- Nanotechnology & Biotechnology
- Energy
- The environment and industrial development
- Radiation Physics
- Laser Technology and Applications
- Immunity
- Environmental Sciences
- Ecology
- Microbiology
- The plant (Physiology)
- Pure Mathematics
- Applied Mathematics
- Chemistry
- Zoology
- Geology

## 2. The Research Fields of Social and Human Sciences:

- Education reform
- People with special needs
- Activation of Partnerships with Community
- Sustainable Development of Human
- The terrorism
- The national Personality
- Youth problems
- Leadership & Management
- Psychological disorders
- Women's Issues
- Childhood
- The elderly

- The Research performance
- Raising the efficiency of the performance of employees
- The Political Practices
- Journalism
- Radio & Television
- Public relations and advertising
- Civil Law
- The social legislations
- The international private law
- Accounting in business institutions in Beni-Suef
- Auditing in business institutions in Beni-Suef
- Cost accounting and financial management in Beni-Suef
- Financial management in organizations and institutions in Beni-Suef
- The development of human performance and organizational behavior in Beni-Suef
- Production management in Beni-Suef
- Marketing in Beni-Suef
- The local administration in Beni-Suef

### **3. The Research Fields of Medical Sciences**

- Medical Technology
- Intensive care medicine
- Pediatrics
- Drug development
- Orthopedics
- Rheumatic diseases
- Dermatology
- Oncology
- Plastic surgery
- Diabetes

- Tumor surgery
- Neurological diseases
- Anesthesia
- Chest diseases
- Environment and health
- Rehabilitation
- Woman health
- Microbiology and biology
- Ophthalmology
- Parasitic diseases
- Geriatric medicine
- E.N.T
- Diagnostic radiology
- Urology
- Pathology
- Hepatitis
- Psychiatric medicine
- Oral and Maxillofacial Surgery
- Prevention of Dental Caries
- Prevention of Early teeth loss
- Diagnosis of Oral & Dental Diseases
- Preservation of deciduous teeth
- Dental Rehabilitation
- Orthodontic treatment of malposed teeth and jaw relations
- Removable prosthesis
- Preservation of teeth instead of dental extraction
- Stem cell and uses in dentistry
- Tumors of oro-facial region
- Dental biomaterials

- Organic Chemistry and Medicinal Chemistry
- Biochemistry
- Pharmaceuticals
- Clinical Pharmacy
- Microbiology and Immunology
- Pharmacognosy
- Pharmacology and Toxicology
- Analytical Chemistry
- Food safety and consumer protection from food poisoning
- Developing new methods based on nanoparticles and nanotechnology for rapid examination of food.
- Food spoilage and its effects on the Egyptian economy
- Diabetes mellitus and cardiovascular diseases
- Increasing rate of Aquaculture industry in Southern Upper Egypt
- Chemical residues and heavy metals (Source, determination in food, hazards on consumers, methods of prevention and control)
- Alternative medicine and new methods for curing animal diseases
- Developing Animal wealth in Egypt
- Application of new methods in diagnosis of animal and poultry diseases
- Non-traditional animal feeds
- Increasing productive efficiency of farm animals through embryo banks and genetic improvement
- Overcoming/Combating heat stress problems due to climatic changes
- Combating emerging infectious diseases in farm animal and poultry

- Vaccine production against emerging and infectious diseases
- Human protection against zoonotic diseases
- Basic physical therapy sciences
- Biomechanics
- Physical Therapy for internal medicine
- Physical Therapy for woman and pediatric health
- Physical Therapy for skin and integumentary system.
- Physical Therapy for orthopedic disorders
- Physical Therapy for Neurological disorders
- Community Health Nursing
- Medical Surgical, critical care & Emergency Nursing
- Nursing Administration
- Nursing Psychiatric

#### **4. The Research Fields of Engineering Sciences**

- Mechanical Engineering (Metal forming)
- Mechanical engineering (Energy)
- Analytical and environmental chemistry
- Synthetic organic chemistry
- Textile chemistry and technology
- Spinning and textile, Knitting
- Architectural Engineering
- Civil Engineering (Industrial Education)
- Regional Planning
- Electrochemical Engineering
- Environmental Engineering
- Material Science and structure materials
- Structural Engineering
- Public Works Engineering
- Hydraulics, Water Resource & Irrigation Engineering



- Electrical measurements
- Power and Energy Measurements
- Renewable Energy- Solar Energy
- Analysis of Egyptian Electrical Network
- The effect of Network on household appliances
- Materials and production engineering
- Industrial engineering
- Tribology and troubleshooting
- Industrial engineering
- Mechanical power and energy (using the solar energy)
- Heat exchangers
- Mechanical design and production (investigation of the methods and steps of materials production)
- Mechanical design and production (production of nano raw materials)
- Sports equipment and machinery
- Hardware and machinery vibrations
- Internal combustion engines
- Medical equipment and machinery
- Dynamics of mechanical equipment automatic control
- Tribology and lubrication
- The study of continuous ignition
- Planning for Engineering Education
- Biomedical Engineering
- Smart Environment
- Sustainable development
- Smart transportation Systems
- Wireless Network
- Robots
- Smart Cities

## The Action Plan for Research Topics within Different Research Fields

### 1- The action plan for Basic Sciences research fields:

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Material science & Nanoscience	<ul style="list-style-type: none"> <li>○ Fabrication and characterization of nanostructures and nanophotonics for water applications (desalination and purification).</li> <li>○ Fabrication of nanoporous membranes for use in water purification and desalination based on reverses osmosis.</li> <li>○ Fabrication of nanosensors for the detection of gases, heavy metals and chemical and biological compounds which have serious environmental impacts.</li> </ul>	Faculty of Science & Faculty of Graduate Studies for Advanced Sciences	Master and PhD grant.  Publishers of scientific research in international journals.	12 months	Beni-Suef University, External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Nanotechnology & Biotechnology	- Biotechnology and nanotechnology applications in biological treatment of wastewater.	Faculty of Graduate Studies for Advanced Sciences,	- PhD and Master theses	24 months	Beni-Suef University, STDF, National Academy of Science & Technology
	- A new approach to non-conventional antibiotics	Faculty of Science,	- International publications in peer-reviewed journals with high impact factor	12 months	
	- New drug delivery systems to targeted places in the body.	Faculty of Medicine,		18 months	
	- Maximizing the benefits of using of gold and silver nanoparticles and their relationship to Bacteriocin	Faculty of Vet. Medicine,		24 months	
	- Bacteriophage applications	Faculty of Pharmacy		12 months	
	- Development of nano- and biotechnology based tools for detection of pathogenic microorganisms.			24 months	
	- Getting some biologically active			12 months	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>compounds like algae and bacteria extracted from sewage treatment and maximize the use of them.</p> <ul style="list-style-type: none"> <li>- Verification of the possibility of using some natural phenolic compounds in the fight against hepatitis C virus, so it can be used as a preventive or therapeutic.</li> <li>- Preparation of some diagnostic and prognostic markers for cancers and hepatitis.</li> <li>- Control of the production of nanoparticles genetically from biological sources.</li> </ul>			<p>18 months</p> <p>18 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Energy	<ul style="list-style-type: none"> <li>○ Synthesis and characterization of nanostructures and nanophotonics for energy technologies such as solar cells and fuel cells to produce electricity from solar energy and the production of biofuels from oils.</li> <li>○ Preparation nanostructures and nanophotonics for use in energy conservation, such as the production of smart windows and self-cleaning materials production technologies.</li> </ul>	Faculty of Science & Faculty of Postgraduate Studies for Advanced Sciences	Master and PhD grant  Publishers of scientific research in international journals	24 months	- Beni-Suef University  - STDF
The environment and industrial development	<ul style="list-style-type: none"> <li>- Organic solar cells</li> <li>- Fuel production from alga</li> <li>- Production of diesel from oils</li> <li>- Production of energy and fuel</li> </ul>	Faculty of Science & Faculty of Postgraduate	<ul style="list-style-type: none"> <li>- PhD and Master theses</li> <li>- International</li> </ul>	12 months 12 months 12 months 12 months	Beni-Suef University, STDF, National Academy of

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>from plastic</p> <ul style="list-style-type: none"> <li>- Extraction of biologically efficient compounds from plants</li> <li>- Extraction of natural compounds from microorganisms</li> <li>- Synthesis of biologically active organic compounds using nanomaterials.</li> <li>- Petrochemical industry</li> <li>- Production of polymers by using nanomaterials</li> <li>- Cement industry technology</li> </ul>	Studies for Advanced Sciences	publications in peer-reviewed journals with high impact factor	<p>12 months</p> <p>18 months</p> <p>18 months</p> <p>12 months</p> <p>12 months</p> <p>24 months</p>	Science & Technology
Radiation Physics	<ul style="list-style-type: none"> <li>○ Research work and studies in the field of nuclear radiation physics.</li> <li>○ Research work and studies in the field of radiation detectors to reach simple and cheap detector.</li> <li>○ Applications of nuclear radiation</li> </ul>	Faculty of Science	<p>-Master and PhD grant</p> <p>-Publishers of scientific research in</p>	12 months	The University STDF

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>physics in the area materials sciences.</p> <ul style="list-style-type: none"> <li>○ Nuclear radiation physics applications in the medical field (diagnosis and treatment).</li> <li>○ Applications of nuclear radiation physics in industry, agriculture and the development of environment.</li> </ul>		international journals		
Laser Technology and Applications	<ul style="list-style-type: none"> <li>○ Laser Development and Technology.</li> <li>○ Applications of lasers.</li> <li>○ Ultrafast Laser Spectroscopy.</li> <li>○ High intensity Laser-matter Interactions.</li> <li>- 5- Attosecond Laser Physics.</li> </ul>	Faculty of Science	-Master and PhD Theses - International publications	12 months	Beni-Suef University, STDF
Immunity	- Immunological changes associated with tumors such as	Faculties of: Science,	Master and PhD	12 months	Beni-Suef University,

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>liver and breast cancers</p> <ul style="list-style-type: none"> <li>- immunological changes associated with viral infections such as hepatitis C virus</li> <li>- Disorders resulting from autoimmune disease</li> <li>- Parasitic infestation and treatment approaches</li> </ul>	<p>Medicine, Veterinary Medicine, and Pharmacy</p>	<p>theses</p> <p>International publications</p>	<p>12 months</p> <p>12 months</p> <p>12 months</p>	<p>External funding agencies</p>
Environmental Sciences	<ul style="list-style-type: none"> <li>- Identify the characteristics, levels and types of pollutants in Egypt and ways to mitigate</li> <li>- Determine the properties of distribution of particles and emissions, and Education methods.</li> <li>- Modeling and interpretation of data</li> <li>- Study of the environmental and</li> </ul>	<p>Faculty of Science and Faculty of Engineering</p>	<p>Master and PhD theses</p> <p>International publications</p>	<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	<p>University</p>



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>public health impact of the particles and their emissions.</p> <ul style="list-style-type: none"> <li>- Study of wastewater and its treatment for reuse and recycling using modern biological and technological techniques.</li> </ul>			12 months	
Ecology	<ul style="list-style-type: none"> <li>- Wastewater study, treatment and reuse and recycling using biological technology and modern techniques.</li> </ul>	Faculty of Science	Master and PhD grant. Publishers of scientific research in international journals.	12 months	The University
Microbiology	<ul style="list-style-type: none"> <li>- Isolation and identification of bacteria-processing that of water of different bacteria applied studies in various fields such as industry.</li> <li>- The use of biotechnology in</li> </ul>	Faculty of Science	<p>Master and PhD grant</p> <p>Publishers of scientific research in</p>	24 months	Beni-Suef University, STDF, National Academy of Science & Technology

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>various applications such as fermentation</p> <ul style="list-style-type: none"> <li>- The study of isolation and identification of various fungi and the study of diversity to take advantage of microorganisms in different life applications: such as energy production and fermentation and resistance diseases affecting humans and animals - also in the field of agriculture, such as improving the soil and control of plant diseases.</li> <li>- Using biotechnology of production of secondary metabolites as enzymes, antibiotics and also in the waste</li> </ul>		international journals		

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>recycling.</p> <ul style="list-style-type: none"> <li>- The controlling of bacterial and fungal diseases of animals and humans.</li> </ul>				
The plant (Physiology)	<ul style="list-style-type: none"> <li>- Study the different effects on the plants as respiration, photosynthesis and different enzymes.</li> <li>- Using the advanced techniques as tissues cultures.</li> <li>- Study biological diversity and allopathic phenomenon of the plants.</li> <li>- The different application of the microorganisms in the industry and agriculture fields.</li> <li>- Using the algae in the treatments of the ecological problems.</li> </ul>	Faculty of Science	<ul style="list-style-type: none"> <li>-Master and PhD grant</li> <li>-Publishers of scientific research in international journals</li> </ul>	12 months	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Pure Mathematics	1) Topology: $\mathbb{R}$ -fuzzy Structures (neighborhood spaces, $\mathbb{R}$ uniform spaces, topologies, topogenous space, $\mathbb{R}$ proximities)	Faculty of Science	Master and PhD grant. Publishers of scientific research in international journals.	6 months	The University
	2) Numerical Analysis and Approximation Theory: <ul style="list-style-type: none"> <li>- New numerical techniques for solving fractional differential equations (FDEs).</li> <li>- Proposing new spectral algorithms for solving integral and integro-differential with variable orders.</li> <li>- Developing spectral collocation approximation for approximating ODEs .</li> </ul>	Faculty of Science	Master and PhD grant  Publishers of scientific research in international journals	6 months	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Presenting new special function for adapting new numerical algorithms.</li> </ul>				
	<p>3) Abstract Algebra- Finite groups:</p> <ul style="list-style-type: none"> <li>- The following question will be under consideration in the nearest future:</li> <li>- Let the group <math>G=G_1 G_2 \dots G_r</math> be the product of the pairwise permutable subgroups <math>G_1, G_2, \dots, G_n</math> such that the products <math>G_i G_j</math> are either mutually or totally permutable for all <math>i, j</math>. If the <math>G_i</math> satisfy certain group theoretical property, can we describe in some satisfactory manner the class of</li> </ul>	Faculty of Science	<ul style="list-style-type: none"> <li>-Master and PhD grant</li> <li>-Publishers of scientific research in international journals</li> </ul>	6 months	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	groups in which $G$ belongs?				
	<p>4) Mathematical Statistics:</p> <ul style="list-style-type: none"> <li>- Statistical Inference</li> <li>- Accelerated Life Tests</li> <li>- Composition of Distribution Functions</li> <li>- Recurrence Relation for the Moments.</li> <li>- Ensoring</li> </ul>	Faculty of Science	<p>-Master and PhD grant</p> <p>-Publishers of scientific research in international journals</p>	6 months	The University
Applied Mathematics	<ul style="list-style-type: none"> <li>▪ Fluid Mechanics:</li> <li>- Mechanics of ionized gases (magnetohydrodynamics) and its applications to space and plasma devices.</li> <li>- Variational principles formulations of the equilibrium</li> </ul>	Faculty of Science	<p>-Master and PhD grant</p> <p>-Publishers of scientific research in international</p>	6 months	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>equations of magnetohydrodynamics (MHD) fluids.</p> <ul style="list-style-type: none"> <li>- Study the linear and nonlinear stability of ideal and resistive fluids.</li> <li>▪ Partial differential equations:               <ul style="list-style-type: none"> <li>- Methods for solving nonlinear partial differential equations and its applications.</li> </ul> </li> </ul>		journals		
Chemistry	<p><u>Chemistry:</u></p> <ul style="list-style-type: none"> <li>- Mechanical study of chemical reactions.</li> <li>- Study the electronic structure of some chemical compounds.</li> </ul> <p><u>Organic Chemistry:</u></p> <ul style="list-style-type: none"> <li>- Preparation of chemicals that can be used in the field of medicine</li> </ul>	<p>Faculty of Science and Faculty of Postgraduate Studies for advanced Science</p>	<ul style="list-style-type: none"> <li>- MSc and Ph.D. theses</li> <li>- Scientific publications in international peer reviewed</li> </ul>	<p>12 months</p> <p>12 months</p> <p>12 months</p>	<ul style="list-style-type: none"> <li>- Beni-Suef University</li> <li>- External funding agencies</li> </ul>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>and pharmacy.</p> <p><b><u>Physical Chemistry:</u></b></p> <ul style="list-style-type: none"> <li>- Preparation of chemicals such as carbon nano with multiple applications.</li> <li>- How to get the right laser for some chemical reactions.</li> <li>- The introduction of some sensitive sensors of chemical elements.</li> </ul> <p><b><u>Biochemistry:</u></b></p> <ul style="list-style-type: none"> <li>- The biological effects of some natural products for the protection and treatment of some endemic diseases.</li> <li>- Study the effect of some chemical compounds and its relationship with some common diseases in</li> </ul>		journals	<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>the community.</p> <ul style="list-style-type: none"> <li>- Study the genetic and immunological changes of some chemical compounds.</li> </ul>			12 months	
Zoology	<ul style="list-style-type: none"> <li>- Therapeutic, preventive and protective effects of some medicinal plants' extracts and constituents on drugs- and chemicals-induced toxicities and on some diseases such as blood diseases, cancer, liver diseases, immune deficiency syndromes, teratogenic embryonic changes, epilepsy, seizure, multiple sclerosis, diabetes mellitus, metabolic syndromes.....etc. The studies aim to target cell receptors, signaling,</li> </ul>	Faculties of medicine, veterinary medicine and pharmacy	<ul style="list-style-type: none"> <li>- Human protection against diseases</li> <li>- New therapies of diseases.</li> <li>-M. Sc. and Ph. D. granting degrees.</li> <li>-Publication of research and review articles in highly impacted journals</li> </ul>	12 months	Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>inflammation, oncogenes, tumour suppressor genes and apoptosis.</p> <ul style="list-style-type: none"> <li>- Studies of side effects of some conventional drugs on animal cells, tissues and organs as well as embryos and elucidation of the molecular mechanisms of action.</li> <li>- Studies on the physiological and immunological mechanisms of action in various diseases.</li> <li>- Studies on treatment of various embryonic diseases.</li> <li>- Comparative anatomical and</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>molecular studies in different tissues.</p> <ul style="list-style-type: none"> <li>- Detection of certain pathogenic parasites of animals and humans and studying of their life cycles and their recent therapies.</li> <li>- Studies on some best and parasitic insects to find successful ways for their control.</li> </ul>			<p>12 months</p> <p>12 months</p>	
Geology	<ul style="list-style-type: none"> <li>- Stratigraphic sequence of sedimentary rocks in Egypt: different silica resources and its application in advanced industries</li> <li>- Hard rocks in Egypt and their associating mineralization</li> </ul>	Faculty of Science	<ul style="list-style-type: none"> <li>-New petroleum discoveries.</li> <li>-New mineralization</li> </ul>	<p>12 months</p> <p>12 months</p>	BSU

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Fossil content and lithostratigraphy of Neogene and Carboniferous rocks</li> <li>- Petroleum reservoirs</li> <li>- Gulf of Suez tectonics</li> <li>- Constructions problems in new cities</li> <li>- Syntheses of new compounds used in water purification</li> <li>- Following temperature changes, their effect on the sea level and its associating hazards on coastal cities</li> <li>- Stratigraphic sequence of sedimentary rocks and their industrial applications and environmental hazards</li> <li>- Basement rocks and mineral</li> </ul>		<p>discoveries.</p> <p>-New water purification techniques</p> <p>-Awarding Master and PhD. Degrees in the mentioned field</p> <p>-New publications in international</p>	<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>economics study.</p> <ul style="list-style-type: none"> <li>- Industrial applications for minerals and rocks</li> <li>- Mineralogy of economic minerals (gold, fluorite, chromite,.....)</li> <li>- Water geochemistry, underground control of underground water and water purification.</li> <li>- Basement rocks and its associating economic ores</li> <li>- Sedimentary rocks and their content of natural resources, e.g. petroleum and ground water and their suitability for using in reclamations projects.</li> <li>- Over population and their effect on natural resources.</li> </ul>		scientific journals	<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Industrial applications of minerals and rocks.</li> <li>- Applied studies to develop the local society.</li> </ul>			<p>12 months</p> <p>12 months</p>	

## 2- The action plan for Social & Human Sciences research fields:

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Education reform	Solving educational problems	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - World-Class education in Egypt.	12 months	- Beni-Suef University - Civil Society Organizations
	The development of curricula and programs	Faculties of Arts, and Education	- International publications	12 months	- Beni-Suef University - Civil Society Organizations
	Recent trends in the management of educational institutions	Faculties of Arts, and Mass Communication		12 months	- Beni-Suef University - Civil Society Organizations
	Adult education and continuing education	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	New formulas for public education and university	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	Interest in information and communication technology	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	Accreditation and quality standards	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	Academic Professionalism	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
People with special needs	Diagnosis and treatment of disabilities	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - World-Class education in Egypt.	12 months	- Beni-Suef University - Civil Society Organizations
	Special Education	Faculties of Arts, Mass Communication and Education	- International publications	12 months	- Beni-Suef University - Civil Society Organizations
	Talented Students Education	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	The study of biology, neuropsychology and psychophysiology of various disabilities	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Academy of Scientific Research & Technology

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Activation of Partnerships with Community	Dissemination of knowledge culture	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - World-Class education in Egypt.	12 months	- Beni-Suef University - Civil Society Organizations
	Dissemination of the culture of occupational development	Faculties of Arts, Mass Communication and Education	- International publications	12 months	- Beni-Suef University - Civil Society Organizations
	Educational and societal problems of contemporary issues	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	Family and social violence	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
	Psycho-social phenomena in Egyptian society	Faculties of Arts, Mass		12 months	- Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Communication and Education			- Civil Society Organizations
Sustainable Development of Human	Self-development, and self-management strategies and time	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - World-Class education in Egypt.	12 months	- Beni-Suef University - Civil Society Organizations
	Selection and leadership development for volunteer work and evaluation	Faculties of Arts, Mass Communication	- International publications	12 months	- Beni-Suef University - Civil Society Organizations
	Volunteer and determinants of behavior and ways to measure	Faculties of Arts, Mass Communication and Education		12 months	- Beni-Suef University - Civil Society Organizations
The terrorism	The types and rates of spread of fanaticism and its causes	Faculties of Arts, Mass Communication	-Master and Ph.D. Theses - World-Class	12 months	- Beni-Suef University - Civil Society Organizations

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	Behavioral and intellectual extremism	Faculties of Arts and Law	education in Egypt. International publications	12 months	- Beni-Suef University - Civil Society Organizations
	Conflict between individuals and management methods	Faculties of Arts and Political science and Economy		12 months	- Beni-Suef University - Civil Society Organizations
The national Personality	Personal characteristics and trends psychological needs and guiding the administrators of pages and the most influential groups in social networking sites on the Internet	Faculties of Arts, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	National personal ethical and inter-relations and minorities in the country Surrounding	Faculties of Arts, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	The Positive personality	Faculties of Arts, Education, Mass Communication, and Education	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	The Personality Management	Faculties of Arts, Education, Mass Communication, Education and Commerce	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Personality interaction aspects and units	Faculties of Arts, Mass Communication, and Education	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Emotional regulation	Faculties of Arts, Law, Mass Communication, and Education	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Basic features in Personality	Faculties of Arts, Law, Mass Communication, and Education	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
Youth problems	Drug abuse and treatment strategies	Faculties of Arts, Law, Mass Communication, and Medicine	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Customary marriages in phase; adolescence, youth, and adulthood	Faculties of Arts, Law, and Mass Communication,	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Youth decision-making segments and strategies taken	Faculties of Arts and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Thinking skills (Inferential - critical, creative).	Faculties of Arts	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Development - effectiveness - efficiency - change directions.	Faculties of Arts	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Instruct teenagers: Preparation of outreach programs include strategies (development / preventive / therapeutic) to overcome the problems of adolescence.	Faculties of Arts	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Problem use of the Internet (the rates and types and attributes).	Faculties of Arts, Law and Computer Sciences	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Aggressive behavior		- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
Leadership & Management	Wisdom - creativity – thinking - social knowledge.	Faculties of Arts and Political Sciences	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Leaders and staff communication skills in institutions.	Faculties of Arts and Commerce	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Social and institutional identity	Faculties of Arts and Mass Communication	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
	Dedication to administrative work	Faculties of Arts and Commerce	- Master and Ph.D. Theses - International publications	6 months	- Beni-Suef University - Academy of Scientific Research Technology
Psychological disorders	The Biology, neuropsychology, and psychophysiology of body functions.	Faculties of Arts and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Psychological and neurological diseases.	Faculties of Arts and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Willingness to psychological illness.	Faculties of Arts, Education and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Psycho-pharmacological behavior (drugs and behavior).	Faculties of Arts and Pharmacy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Various mental and cognitive abilities in relation to the evaluation of diseases and mental disorders and neurological and developmental disabilities and mental.	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Assess the efficiency of psychotherapy.	Faculties of Arts, Medicine, Law, and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Rehabilitation and prevention of mental illness programs, and behavioral problems.	Faculties of Arts, Medicine, Law, Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		and Education			Research Technology
	Marital and family therapy programs.	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	The relationship between some physical diseases and between cognitive disorders and anatomical	Faculties of Arts, Medicine, Law, and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Track cognitive disorders and mental illness and disabilities at different age groups path.	Faculties of Arts, Medicine, Law, Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		and Education			Research Technology
	The associated behavior for disorders of physiological functions and processes, such as Sleeping and motivation. For example, programs manage and modify behavior.	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Verification of efficiency standards and diagnostic tools in the detection of cognitive disorders and behavioral abnormalities and nervous and mental illness and disability.	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Addiction and drugs.	Faculties of Arts, Medicine, Law, Commerce, Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		and Education			Research Technology
	Social and professional variables closely related disorders and psychological problems and Personality (such as age and sex (gender) and the face of pressure and evolutionary stage ...).	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Neuropsychological assessment and the development of new measures to scale disturbances and cognitive functions and personality traits to the target and the disabled and misfits.	Faculties of Arts, Medicine, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Psychological problems to the families of the mentally ill and nervous and disabled and methods of confrontation.	Faculties of Arts, Medicine, Law, Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		and Education			Research Technology
	Variables that contribute to improving the fate of psychiatric and nervous and disabled patients.	Faculties of Arts, Medicine, Law, Commerce, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Psychological problems and some symptoms of the disease at healthy people.	Faculties of Arts, Medicine, Law, Commerce, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	The problems facing the team and therapeutic that affect the interaction between them.	Faculties of Arts, Law, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
	Comparisons between the various symptoms and improved pharmacological treatments.	Faculties of Arts, Medicine, Law, Commerce, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	Various mental and cognitive abilities in relation to the evaluation of diseases and mental disorders and neurological and developmental disabilities and mental.	Faculties of Arts, Medicine, Law, Commerce, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific Research Technology
	The relationship between the behavior in the case of both the disease and the brain.	Faculties of Arts, Medicine, Law, Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Academy of Scientific

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					Research Technology
Women's Issues	Sexual harassment	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Confrontation of sexual harassment strategies.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Develop programs to train women on confrontation of sexual harassment.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	Divorce and prevention strategies.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The violence against Woman.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Family counseling: Preparation of outreach programs include strategies (development / preventive / therapeutic) to Confrontation the problems within the family.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	Marital counseling: Preparation of outreach programs include strategies (development / preventive / therapeutic) in periods (before / during / after) Marriage.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Assertive behavior in the development stages of the bottom-up programs.	Faculties of Arts, Mass Communication and Education	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Marital compatibility.	Faculties of Arts, and Mass Communication	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
Childhood	Psychological and behavioral problems of street children.	Faculties of Arts, and Mass Communication	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			publications		funding agencies
	Developmental problems of childhood.	Faculties of Arts, Mass Communication and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Behavioral problems of childhood (Early, middle & late) and adolescence (early - middle - late).	Faculties of Arts, Mass Communication and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Psychological, behavioral and academic effects of divorce on children and adolescents.	Faculties of Arts, Mass Communication and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The role of socialization institutions	Faculties of Arts,	- Master and	12 months	- Beni-Suef

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	to cope with domestic violence / school / community.	Mass Communication	Ph.D. Theses - International publications		University - Foreign funding agencies
The elderly	Psychological and health problems for the elderly.	Faculties of Arts, Mass Communication and Medicine	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
The Research performance	Research performance quality in a sample of adults from faculty members.	Faculties of Arts, Mass Communication and Law	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
Raising the efficiency of the performance of	Increase training and learning efficiency.	Faculties of Arts, Mass Communication and Commerce	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
employees					agencies
	The effect of physiological variables on the performance efficiency.	Faculties of Arts, Mass Communication, Law, Education and Commerce	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The impact of neurological changes on performance efficiency.	Faculties of Arts, Mass Communication, Medicine, and Commerce	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University
	Physical variables on the performance efficiency of the effect.	Faculties of Arts, Mass Communication, Law and Commerce	- Master and Ph.D. Theses - International publications	12 months	- Foreign funding agencies
The Political Practices	The psychology of political violence, extremism and terrorism	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		
	Political socialization and the role of psychological and social variables	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The psychology of political awareness.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The psychology of negotiation and relationship with the psychological and social variables.	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University - Foreign



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	The psychology of political alienation.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Voting behavior and its relationship to the psychological and social variables.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Political pressure groups.	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	The formation of political culture.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The psychology of political transformations.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The psychology of political tolerance.	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	The psychology of political intolerance.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Management political differences.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	The psychology of political consensus.	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	12 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	The Political Trends.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Political beliefs and their effect on the political behavior of the individual.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	12 months	- Beni-Suef University - Foreign funding agencies
	Dynamic political parties.	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	18 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	Predictors of political violence management.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	18 months	- Beni-Suef University - Foreign funding agencies
	The Political values of the Egyptian society.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	18 months	- Beni-Suef University - Foreign funding agencies
	Psychology of belonging and loyalty and citizenship	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	18 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
	Psychology of marginalized groups.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	18 months	- Beni-Suef University - Foreign funding agencies
	The youth and political movement.	Faculties of Arts, Mass Communication, Law, and Political Sciences and Economy	- Master and Ph.D. Theses - International publications	18 months	- Beni-Suef University - Foreign funding agencies
	The Leadership and personal analysis of political leaders	Faculties of Arts, Mass Communication,	- Master and Ph.D. Theses - International	18 months	- Beni-Suef University - Foreign

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		Law, and Political Sciences and Economy	publications		funding agencies
Journalism	<p>1- New media and its impact on the Communicative environment (Portals-Citizen Journalism-civil society Journalism- Video Journalism- Participatory journalism -Data Journalism).</p> <p>2- Journalism legislation under the communication and political changes.</p> <p>3- Journalism and audience research.</p> <p>4- Journalism and international communication.</p> <p>5- Journalism and community issues.</p>	Faculty of Mass Communication (Journalism Department)	<p>Master &amp; Ph.D theses</p> <p>International and national publications</p>	6 months for each topic	The university External funding bodies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>6- The economics of the newspaper industry.</p> <p>7- Communicator in the Egyptian newspaper.</p> <p>8- Specialized Journalism.</p> <p>9- Design and layout newspapers.</p> <p>10- Future research in the Journalism.</p> <p>11- New trends in the theoretical Approach Research Journalism.</p>				
Radio & Television	<p>1- Radio and Television production research.</p> <p>2- Political crises in the Arab and foreign satellite channels.</p> <p>3- Radio and television mechanism.</p> <p>4- Audience and public opinion researches related to television.</p> <p>5- Arab and international community issues in radio and</p>	Faculty of Mass Communication (Radio & Television Department)	<p>Master &amp; Ph.D theses</p> <p>International and national publications</p>	6 months for each topic	The university External funding bodies



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>television.</p> <p>6- Ethics of radio and television work.</p> <p>7- Criticism to theories of media in half a century.</p> <p>8- TV advertising research and its ethics.</p> <p>9- New media and its impact on television and radio work environment.</p> <p>10- Legislative and professional ethics on radio and television.</p> <p>11- Communicator in the radio and television work.</p> <p>12- New trends in radio and television research.</p> <p>13- Research drama and the problems of society in TV.</p> <p>14- Television coverage of political</p>				

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>events in the Arab and foreign communities.</p> <p>15- Movies and documentaries research.</p> <p>16- Cinema and its impact on community group (children and adolescents –young people –the public).</p> <p>17- Television and disabled children.</p> <p>18- The use of statistics in the field of media research.</p> <p>19- The stereotype of visual media and audio media.</p>				
Public relations and advertising	<p>1- Organizations reputation and identity Management.</p> <p>2- Integrated Marketing communication.</p> <p>3- Crisis management.</p>	Faculty of Mass Communication (Public relations and advertising Department)	<p>Master &amp; Ph.D theses</p> <p>International and national</p>	6 months for each topic	The university External funding bodies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>4- Marketing (social –commercial – electronic).</p> <p>5- Public relations in new media.</p> <p>6- Professional and ethical practice of public relations.</p> <p>7- International public relations.</p> <p>8- Social responsibility in public relations.</p> <p>9- Public opinion and political research.</p> <p>10- Strategies of design and production advertising in new media.</p> <p>11- Corporate image.</p> <p>12- Advertising and consumer behavior.</p> <p>13- Advertising ethics.</p> <p>14- Strategic planning in public relations.</p>		publications		

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>15- The effectiveness of advertising campaigns.</p> <p>16- Job satisfaction and achievement motivation.</p> <p>17- Organizational communication in institutions.</p> <p>18- Spokesman in public relations.</p>				
Civil Law	<p>1. Evolution of the legal system of contract in light of the general theory of contract</p> <p>2. Legal system for the civil professional responsibility</p> <p>3. Evolution of a legal system to protect the air environment from pollution</p> <p>4. An effective legal system of the neighborhood relations in the field of the civil law</p> <p>5. Evolution of the legislations of</p>	Faculty of Law	<ul style="list-style-type: none"> <li>● Master and PhD theses</li> <li>● National and international publications</li> </ul>	<p>6 Months</p> <p>6 Months</p> <p>6 Months</p> <p>6 Months</p> <p>6 Months</p>	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	civilian responsibility of the architecture				
The social legislations	1. Evolution of the social legal system of the work of children in the comparative Egyptian legislation	Faculty of Law	<ul style="list-style-type: none"> <li>• Master and PhD Theses</li> <li>• Locally and internationally published scientific researches</li> </ul>	12 Month	The University
	2. A legal system to labor invents in working environment			12 Month	
The international private law	<ol style="list-style-type: none"> <li>1. The legal system of the electronic contracts of international nature</li> <li>2. The arbitration in the international civilian and commercial disputes</li> <li>3. The execution of foreign sentences of arbitration</li> <li>4. International protection of rules</li> </ol>	Faculty of Law	<ul style="list-style-type: none"> <li>• Master and PhD Theses</li> <li>• Locally and internationally published scientific researches</li> </ul>	2015-2020	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	of property 5. The international system of the international bankruptcy				
Accounting in business institutions in Beni-Suef	<ul style="list-style-type: none"> <li>- The impact of the application of the Egyptian accounting standards on disclosure and transparency</li> <li>- The impact of accounting disclosure on attracting foreign investments in the financial statements</li> <li>- Measurement and disclosure of human capital and intellectual capital</li> <li>- The use of the Balanced Scorecard to improve the accounting measurement and disclosure.</li> <li>- Behavioral aspects of accounting and its relationship to corporate governance.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>- The existence of financial reports on financial and managerial accounting studies.</li> <li>* Get at least 80% of satisfaction of one of institutions.</li> <li>- Master and PhD dissertations in the field</li> <li>* High Publishing rate of scientific papers in</li> </ul>	<ul style="list-style-type: none"> <li>12 months</li> <li>12 months</li> <li>12 months</li> <li>12 months</li> </ul>	University and External funders.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			international journals		
Auditing in business institutions in Beni-Suef	<ul style="list-style-type: none"> <li>- Control over the quality of work of auditors.</li> <li>- Activating the role of Audit Firms in applying the concept of risk management.</li> <li>- Sustainability theory in Accounting and Auditing.</li> <li>- Accounting and Auditing attitude toward social and environmental responsibility.</li> <li>- The role of corporate governance in Accounting and Auditing.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>- The existence of financial reports on financial and managerial accounting studies.</li> <li>* Get at least 80% of satisfaction of one of institutions.</li> <li>- Master and PhD dissertations in the field</li> <li>* High Publishing rate of scientific</li> </ul>	<ul style="list-style-type: none"> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> </ul>	University and External funders.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Recent trends in the field of managerial auditing in government units.</li> <li>- Using Internet to assessing the accounting knowledge under the cloud computing.</li> </ul>		papers in international journals	6 months  6 months	
Cost accounting and financial management in Beni-Suef	<ul style="list-style-type: none"> <li>- Measurement and disclosure of tax in the Egyptian Accounting Standards and tax legislation.</li> <li>- The value added tax and application problems in Egypt.</li> <li>- A comparison of accuracy between ABC technique and Time Driven ABC technique.</li> <li>- Tax avoidance practices at the national level.</li> <li>- Managerial accounting in the field of services provided via the</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>-Rationalization of financial decision-making at least 20% per year.</li> <li>* Get at least 80% of satisfaction of one of institutions.</li> <li>- Master and PhD dissertations in the field</li> </ul>	6 months 6 months 6 months 6 months	University and External funders.



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	internet.		* High Publishing rate of scientific papers in international journals		
Financial management in organizations and institutions in Beni-Suef	<ul style="list-style-type: none"> <li>- Studying dividend policies.</li> <li>- The study of behavioral finance.</li> <li>- Study the efficiency of the stock market.</li> <li>- Study the determinants of financial structure.</li> <li>- Study capital financing policies.</li> <li>- Study finance working capital policies.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>-Rationalization of financial decision-making at least 5% per year.</li> <li>* Get at least 70% of satisfaction of one of institutions.</li> <li>- High granting rate of Master and PhD dissertations in the field by at</li> </ul>	<ul style="list-style-type: none"> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> </ul>	University and External funders.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			least 10% per year.		
The development of human performance and organizational behavior in Beni-Suef	<ul style="list-style-type: none"> <li>- Analysis and development of selection of employees systems and training of leaders.</li> <li>- Creativity in design and evaluation of functions.</li> <li>- Human resources management in multinational companies.</li> <li>- Modern techniques to face work pressures.</li> <li>- Developing motivation systems.</li> <li>- Planning and monitoring the behavior of individuals in government organization.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>- Increase rate of application of modern systems in selection of employees and human resources management and select leaders by at least 5%</li> <li>* Get at least 70% of satisfaction of one of institutions.</li> <li>- Master and PhD dissertations in the field</li> <li>* High Publishing</li> </ul>	<ul style="list-style-type: none"> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> <li>6 months</li> </ul>	University and External funders.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			rate of scientific papers in international journals		
Production management in Beni-Suef	<ul style="list-style-type: none"> <li>- Strategic planning for the development of production systems.</li> <li>- Production Systems based on JIT.</li> <li>- Development of production policies systems.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>- The high proportion of institutions That apply modern systems of production.</li> <li>* Get at least 70% of satisfaction of one of institutions.</li> <li>- Master and PhD dissertations in the field</li> <li>* High Publishing rate of scientific</li> </ul>	12 months  12 months 12 months	University and External funders.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			papers in international journals		
Marketing in Beni-Suef	<ul style="list-style-type: none"> <li>- balanced Scorecard and improve customer service</li> <li>- Marketing in Non-profit organizations.</li> <li>- Marketing Strategies to enter international markets.</li> </ul>	Faculty of Commerce and other relevant faculties of the university.	<ul style="list-style-type: none"> <li>- Improve the competitive position at a rate of least 70%.</li> <li>- Master and PhD dissertations in the field</li> <li>- High Publishing rate of scientific papers in international journals</li> </ul>	<ul style="list-style-type: none"> <li>6 months</li> <li>6 months</li> <li>6 months</li> </ul>	University and External funders.
The local administration in Beni-Suef	<ul style="list-style-type: none"> <li>- Marketing in the region institutions.</li> <li>- Sustainable marketing for</li> </ul>	Faculty of Commerce and other relevant	<ul style="list-style-type: none"> <li>- Increase rate of application of programs in local</li> </ul>	<ul style="list-style-type: none"> <li>6 months</li> <li>6 months</li> </ul>	University and External

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>government services.</p> <ul style="list-style-type: none"> <li>- Relationship marketing and improve customer service.</li> <li>- International Marketing Strategies.</li> </ul>	faculties of the university.	<p>departments by at least 10%.</p> <ul style="list-style-type: none"> <li>- Get at least 70% of satisfaction of beneficiaries.</li> <li>- Master and PhD dissertations in the field</li> <li>* High Publishing rate of scientific papers in international journals</li> </ul>	<p>6 months</p> <p>6 months</p>	funders.

### 3. The action plan of Medical Sciences research fields:

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Medical Technology	• Stem cells applications in Medicine	Faculty of Medicine	MSc and MD theses, International publications	18 months	University budget, STDF, International funding agencies
	• Nanotechnological applications in medicine			18 months	
	• Applied Anatomy			18 months	
Intensive care medicine	• Diagnostic and prognostic markers of toxemia and Septicemia	Faculty of Medicine	MSc and MD theses, International publications	12 months	University budget, STDF, International funding agencies
	• The role of chest Ultrasonography to predict the fasting of ICU patients of the ventilator			24 months	
	• Respiratory changes and assessment of fluid therapy in toxemia patients on			24 months	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	ventilators through measuring the pulmonary expansion index by Echocardiography				
Pediatrics	<ul style="list-style-type: none"> <li>Assessment the health status of children in Beni-Suef province in terms of: nutritional status - short stature - parasitic infestation - incidence of infectious diseases</li> <li>advances in treatment of Mediterranean anemia, chronic renal failure and bacterial septicemia in neonates</li> <li>Renal failure</li> <li>Neonatal sepsis</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months  24 months  12 months 12 months	University budget, STDF, International funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>• Thalassaemia</li> </ul>			12 months	
Drug development	<ul style="list-style-type: none"> <li>• Non-classical antibiotics</li> <li>• Selectively targeting drugs</li> <li>• Medicinal plants</li> <li>• Medical applications of microphages</li> </ul>	Faculty of Medicine Faculty of Pharmacy	MSc and MD theses, International publications	12 months 12 months 12 months 12 months	University budget, STDF, International funding agencies
Orthopedics	<ul style="list-style-type: none"> <li>• Distortion and disfigurements of spinal column</li> <li>• Joints mechanics</li> <li>• Fracture management</li> <li>• Assessment of movement after vertebral column and limbs injury</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	12 months 12 months 12 months	University budget, STDF, International funding agencies
Rheumatic diseases	<ul style="list-style-type: none"> <li>• Osteoporosis</li> <li>• Anti-oxidants</li> <li>• Auto-immune diseases</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	24 months	University budget, STDF, International funding



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					agencies
Dermatology	<ul style="list-style-type: none"> <li>• Psoriasis diagnosis and treatment</li> <li>• Vitilligo</li> <li>• Dermatological fungal infections</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Oncology	<ul style="list-style-type: none"> <li>• Biological effects of chemotherapy</li> <li>• Pleural tumors diagnosis and treatment</li> <li>• Malignancy associated auto-immune changes</li> <li>• GIT tumors</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	24 months 12 months 12 months 12 months	University budget, STDF, International funding agencies
Plastic surgery	<ul style="list-style-type: none"> <li>• Face implantation</li> <li>• Surgical treatment of lymphedema</li> </ul>	Faculty of Medicine	MSc and MD theses, International	12 months 12 months	University budget, STDF, International

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>Breast surgery</li> <li>Role of plastic waxes in plastic surgery</li> </ul>		publications	12 months 12 months	funding agencies
Diabetes	<ul style="list-style-type: none"> <li>Diabetic foot</li> <li>Diabetes millets</li> <li>Interventional therapy for Peripheral vascular diseases</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Tumor surgery	<ul style="list-style-type: none"> <li>Surgical operations of gastric and pancreatic tumors</li> <li>Surgical operations of hepatic and bile ducts tumors</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	12 months 12 months	University budget, STDF, International funding agencies
Neurological diseases	<ul style="list-style-type: none"> <li>Multiple sclerosis</li> <li>Genetic factors of neurological diseases</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	24 months	University budget, STDF, International funding

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
					agencies
Anesthesia	<ul style="list-style-type: none"> <li>• Pain management</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	24 months	University budget, STDF, International funding agencies
Chest diseases	<ul style="list-style-type: none"> <li>• Inhalants in chest diseases</li> <li>• Airways diseases</li> <li>• Pulmonary tuberculosis</li> <li>• IPF</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Environment and health	<ul style="list-style-type: none"> <li>• Food-borne diseases</li> <li>• Effect of pollution on the human being</li> </ul>	Faculty of Medicine and Veterinary Medicine	MSc and MD theses, International publications	36 months 24 months	University budget, STDF, International funding agencies
Rehabilitation	<ul style="list-style-type: none"> <li>• Rehabilitation in chronic diseases</li> </ul>	Faculty of Medicine	MSc and MD theses,	36 months	University budget, STDF,

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			International publications		International funding agencies
Woman health	<ul style="list-style-type: none"> <li>• Congenital anomalies and embryological diseases</li> <li>• Breast and uterine cervix tumors</li> <li>• Vaginal bleeding</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	12 months 12 months 12 months	University budget, STDF, International funding agencies
Microbiology and biology	<ul style="list-style-type: none"> <li>• Isolation of fungi and bacteria</li> <li>• Experimental biology</li> <li>• Infection control</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	12 months 24 months 12 months	University budget, STDF, International funding agencies
Ophthalmology	<ul style="list-style-type: none"> <li>• Re-fractional surgeries and LASIC</li> <li>• Optic nerve diseases</li> <li>• Glaucoma diagnosis and treatment</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Parasitic diseases	<ul style="list-style-type: none"> <li>Parasitic infections prevention and control</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Geriatric medicine	<ul style="list-style-type: none"> <li>Aging</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
E.N.T	<ul style="list-style-type: none"> <li>Cochlear implantation</li> <li>Skull-base surgeries</li> <li>Nasal tumors</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Diagnostic radiology	<ul style="list-style-type: none"> <li>Radiological anatomy</li> <li>Diagnostic and interventional radiology</li> </ul>	Faculty of Medicine	MSc and MD theses, International	36 months	University budget, STDF, International

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			publications		funding agencies
Urology	<ul style="list-style-type: none"> <li>• Tumors of the urinary system</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	36 months	University budget, STDF, International funding agencies
Pathology	<ul style="list-style-type: none"> <li>• Hepatitis C histopathology</li> <li>• Prevalence and incidence of nasopharyngeal polyps in the population of Beni-Suef province</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	24 months 24 months	University budget, STDF, International funding agencies
Hepatitis	<ul style="list-style-type: none"> <li>• Diagnostic and prognostic markers of hepatitis</li> <li>• Pathological assessment of hepatitis</li> <li>• Immunological changes associated with hepatitis</li> </ul>	Faculty of Medicine	MSc and MD theses, International publications	60 months	University budget, STDF, International funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Psychiatric medicine	• Tendency to have a psychiatric illness	Faculty of Medicine	MSc and MD theses, International publications	12 months	University budget, STDF, International funding agencies
	• Biology of Psychiatric disorders			12 months	
	• Protection and rehabilitation of psychiatric diseases			12 months	
	• Psychosomatic disorders			12 months	
	• Drug dependence and abuse			12 months	
	• Social changes effects on the tendency of psychiatric diseases			12 months	
	• Neuropsychiatric assessment			12 months	
	• Assessment of psychoactive drugs			12 months	
	• Assessment of mental abilities and I.Q			12 months	
	• Children and adolescents psychiatric troubles			12 months	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>Psychiatric troubles in geriatric population and chronically diseased</li> </ul>			12 months	
Oral and Maxillofacial Surgery	<ol style="list-style-type: none"> <li>Oral &amp; Maxillofacial Fractures</li> <li>Dental Implants</li> <li>Oral &amp; Maxillofacial Tumors</li> <li>Facial Deformities</li> <li>Rehabilitation</li> <li>Computer Guided Surgeries</li> <li>Temporomandibular Joint Disorders</li> </ol>	Faculty of Dentistry Department of Oral & Maxillofacial Surgery	Management & Rehabilitation of patients suffer from diseases related to Oral and Maxillofacial Surgery - International publications	12 Months for each Subject	Beni-Suef University
Prevention of Dental Caries	<ol style="list-style-type: none"> <li>Studying of different materials used for operative dentistry</li> <li>Studying of different bonds between teeth and dental materials</li> <li>Dental Caries</li> </ol>	Faculty of Dentistry	Prevention of dental caries - International publications	12 Months for each Subject	Beni-Suef University



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	4. Dental materials for aesthetics 5. New technology to discover dental caries				
Prevention of Early teeth loss	1. Laser in periodontology 2. Dental implantology 3. Bone grafts 4. Geriatric Dental medicine	Faculty of Dentistry Department of Oral medicine, Periodontology & Diagnosis	Prevention of Early teeth loss - International publications	12 Months for each Subject	Beni-Suef University
Diagnosis of Oral & Dental Diseases	1. Computer Guided Diagnosis 2. Computed Tomography In Dentistry 3. Digital Radiology 4. Laser in Dentistry	Faculty of Dentistry Department of Oral Diagnosis	Diagnosis of Oral and Dental Diseases - International publications	12 Months for each Subject	Beni-Suef University
Preservation of deciduous teeth	1. Studying new dental materials 2. Studying new methods to	Faculty of Dentistry	Preservation of deciduous teeth	12 Months for each	Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	prevent dental caries 3. Studying new methods to deal with handicapped children	Department of crown and bridge	- International publications	Subject	
Dental Rehabilitation	1. Studying zirconium 2. Studying the efficacy of zirconium bonds 3. Studying digital color shade selection 4. Studying new plastic stent for dental rehabilitation	Faculty of Dentistry Department of crown and bridge	Dental Rehabilitation with advanced methods - International publications	12 Months for each Subject	Beni-Suef University
Orthodontic treatment of malposed teeth and jaw relations	1. Studying the use of three dimensional computed tomography scanning 2. Studying the different new materials used in orthodontic treatment 3. Studying of different techniques of orthognathic	Faculty of Dentistry Department of orthodontist	Orthodontic treatment of malposed teeth and jaw relations - International publications	12 Months for each Subject	Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	surgeries 4. Studying of computer guided orthodontic treatment				
Removable prosthesis	1. Studying of implant supported prosthesis 2. Studying of new materials used in dentures relining 3. Studying of centric occlusion 4. Studying of new different methods used to measure centric occlusion	Faculty of Dentistry Department of removable prosthesis	Total teeth replacement and dental rehabilitation - International publications	12 Months for each Subject	Beni-Suef University
Preservation of teeth instead of dental extraction	1. Studying of bacterial entrance through roots apices 2. Studying of new technology in endodontics 3. Studying of new techniques used to determine length of root canals	Faculty of Dentistry Department of endodontics	Preservation of teeth instead of dental extraction - International publications	12 Months for each Subject	Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	4. Studying of new methods used for treatment of infected root canals				
Stem cell and uses in dentistry	<p>1. Studying of different applications of stem cells in treatment of oral and dental tissues diseases</p> <p>2. Studying the use of stem cells to create natural to replace dental implants</p> <p>3. Studying of the effect of different materials on the healing of oral tissue</p>	Faculty of Dentistry Department of oral biology	Determine the nature of oral and dental tissues to reach the most appropriate methods for treatment of oral and dental diseases - International publications	12 Months for each Subject	Beni-Suef University
Tumors of oro-facial region	1. Studying of benign and malignant cells behavior of odontogenic and non odontogenic tumors	Faculty of Dentistry Department of oral	Prevention and treatment of benign and malignant	12 Months for each Subject	Beni-Suef University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	2. Studying of molecular biology of oral viruses 3. Studying of different tumor markers related to odontogenic tumors 4. Studying the differences between odontogenic cysts and tumors	pathology	orofacial lesions - International publications		
Dental biomaterials	1. Studying of the effect of changes in oral media on dental materials 2. Studying of different materials used as scaffold to carry stem cells for bone grafts 3. Studying of nanotechnology in dentistry 4. Studying of different materials used for surface treatment in	Faculty of Dentistry Department of dental biomaterials	Improvement of dental materials in all fields of dentistry - International publications	12 Months for each Subject	Beni-Suef University – External funding agencies



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>Experimental models for hepatic injury, DM, kidney failure, brain dysfunction and trials for their treatment with antioxidants and natural products</li> <li>Metabolic syndrome and their treatment with natural products</li> </ul>			6 months  6 months	
Pharmaceutics	<ul style="list-style-type: none"> <li>Gene delivery for treatment of different diseases</li> <li>Stem cells for treatment chronic and acute disease.</li> <li>Drug targeting and nanotechnology as carriers for new moieties.</li> <li>Formulation and evaluation of recent and other various</li> </ul>	Faculties of Pharmacy, Medicine and Veterinary Medicine	- Master and PhD theses - International publications	12 months 24 months 12 months 12 months	Beni-Suef University – External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>dosage forms</p> <ul style="list-style-type: none"> <li>• Statistical treatment of data and formulation optimization: solving problems in the solubility of recent drugs and solving problems in the bioavailability of recent drugs by formulation in new dosage forms.</li> <li>• Tissue engineering for skin, liver, nerves, and other organs</li> <li>• Application of Physiologically-Based Pharmacokinetic (PBPK) models for optimization of drug release.</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p>	



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>• Application of PBPK models for prediction of bioequivalence and design of bioequivalence trials</li> <li>• Development of in vitro-in vivo correlation models for prediction of drug absorption profiles.</li> <li>• Analysis of solid-state and liquid-state degradation kinetics and thermodynamics of certain drugs.</li> <li>• Application of diffusion-based models for optimization of drug release.</li> <li>• Analysis of Adsorption kinetics and dynamics of certain drug/polymer</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>6 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>systems.</p> <ul style="list-style-type: none"> <li>• Fractional Factorial, Plackett-Burman Designs, Central Composite Design, Box-Behnken Design, Simplex Mixture Designs, Sequential Designs, D-Optimal Design, Bayesian Designs, Split-Plot Designs.</li> <li>• Aerosol lung deposition of different types of inhalers in different types of patient</li> </ul>			<p>12 months</p> <p>12 months</p>	
Clinical Pharmacy	<ul style="list-style-type: none"> <li>• Effect of counseling on different types of patients.</li> <li>• Comparison of different type of methods of treatment on patients.</li> </ul>	Faculty of Pharmacy	- Master and PhD theses - International publications	<p>12 months</p> <p>12 months</p>	Beni-Suef University – External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Microbiology and Immunology	•Microbial resistance to antibiotics: prevalence, mechanisms, multidrug resistance, and prevention	Faculties of Pharmacy, Medicine, Science and Veterinary Medicine	- Master and PhD theses - International publications	24 months	Beni-Suef University – External funding agencies
	•Hepatitis C virus: treatment and diagnosis			12 months	
	•Discovery of antimicrobial agents produced by natural sources			12 months	
	•Antimicrobial surveillance of healthcare & associated infections			12 months	
	•Application of molecular techniques for identification of microorganisms			12 months	
•Investigating host pathogen interactions	12 months				
•The molecular techniques for		6 months			

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>detecting, typing, and characterizing of microorganisms of potential medical biotechnological importance</p> <ul style="list-style-type: none"> <li>•Microbial degradation of toxic compounds</li> <li>•Discovery novel microorganisms from extreme sites (deserts, contaminated area etc.)</li> <li>•Exploration of natural products found in marine life</li> <li>•Discovery of new enzymes for industrial applications</li> <li>•Use of microorganism for production of chemicals via fermentation techniques</li> <li>•Use of microorganisms and isolated enzymes for biofuel</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p><b>production</b></p> <ul style="list-style-type: none"> <li>•Production of useful products from microorganisms using the genetic engineering tools</li> <li>•Application of bioinformatics tools for protein engineering</li> <li>•The microbial quality of food and water in Beni-Suef governorate</li> <li>•Use of enzymes as biocatalysts for green production of chemicals</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	
Pharmacognsy	<ul style="list-style-type: none"> <li>•Phytochemical and biological study of different medicinal plants in Egyptian environment</li> <li>•Natural products as enzyme inhibitors for production of bioactive agents</li> </ul>	Faculties of Pharmacy, Medicine and Veterinary Medicine	- Master and PhD theses - International publications	<p>24 months</p> <p>12 months</p>	Beni-Suef University – External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>•Isolation of bioactive compounds from marine organisms</li> <li>•Quality control of certain herbal formulae in Egyptian market used in respiratory tract disease</li> <li>•Effective natural sources on enzyme responsible for skin wrinkles</li> <li>•Anti-inflammatory natural sources</li> <li>•Natural sources as anticancer agents</li> <li>•Natural sources for Alzheimer treatment</li> <li>•Semi synthesis of bioactive natural compounds in certain disease</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>•Nanoscale natural products for production of cosmetic and medicinal pharmaceutical preparation</li> <li>•Different spectroscopic techniques for identification of chemical structures of natural products</li> <li>•Using biotography in isolation of effective natural product from plants and essential oils</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p>	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Pharmacology and Toxicology	<ul style="list-style-type: none"> <li>• Study of the protective effect of different agents on the diseases of heart, kidney, joints, stomach and colon on chemically or surgically induced rat models.</li> </ul>	Faculties of Pharmacy, Medicine and Veterinary Medicine	- Master and PhD theses - International publications	24 months	Beni-Suef University – External funding agencies
	<ul style="list-style-type: none"> <li>• Study of the protective effect of different agents on the diseases of brain, bronchi and pancreas on chemically or surgically induced rat models.</li> </ul>			24 months	
Analytical Chemistry	<ul style="list-style-type: none"> <li>• Drug stability studies</li> <li>• Impurity profiling of drugs</li> <li>• Chemometric methods of</li> </ul>		- Master and PhD theses - International	6 months 6 months 6 months	Beni-Suef University – External



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	analysis <ul style="list-style-type: none"> <li>• Spectral methods of analysis</li> <li>• HPTLC chromatographic methods of analysis</li> <li>• HPLC chromatographic methods of analysis</li> </ul>		publications	6 months 6 months 6 months	funding agencies
Food safety and consumer protection from food poisoning	<ul style="list-style-type: none"> <li>- Incidence of food-borne pathogens in animal-derived foods</li> <li>- Molecular identification and characterization of isolated pathogens</li> <li>- Food poisoning outbreaks and related agents</li> <li>- Use of Natural herbs as antimicrobials in foods.</li> <li>- Trace the sources of contamination of animal-</li> </ul>	Faculties of Veterinary Medicine, Medicine and Agriculture	<ul style="list-style-type: none"> <li>- Updating current properties of animal-origin foods</li> <li>- Consumer protection and awareness about danger of food contamination and its control</li> <li>- Master and PhD theses in the</li> </ul>	24 Month 24 month 24 Months 24 Months	The University Research Projects funding agencies.

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>derived foods by microorganisms.</p> <ul style="list-style-type: none"> <li>- Evaluation of the safety of processed meats and dairy products.</li> </ul>		<p>specified discipline</p> <ul style="list-style-type: none"> <li>-International publishing of researches</li> </ul>	24 Months	
Nanotechnological and biotechnological applications in food science	<ul style="list-style-type: none"> <li>- Development of nanotechnology-based tools based for rapid examination of food.</li> <li>- Development of new biosensors for detection of biological and chemical hazards in food.</li> <li>- Lateral flow kits for food-borne pathogens.</li> <li>- Nano-packaging and Bio-packaging of foods</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Agriculture</li> <li>-Faculty of Engineering</li> <li>-Faculty of Graduate studies for Advanced Sciences</li> </ul>	<ul style="list-style-type: none"> <li>-Novel, rapid and precise nanotechnology-based methods for food examination</li> <li>-International publication of researches in reputed journals</li> </ul>	60 Months	The University - External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Food spoilage and its effects on the Egyptian economy	<ul style="list-style-type: none"> <li>- Isolation of specific spoilage microorganisms from foods.</li> <li>- Development of new methods for retarding food spoilage and shelf-life extension.</li> <li>- Application of medicinal plants for shelf-life extension</li> <li>- New technologies of food-processing and storage.</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Agriculture</li> <li>-Faculty of Economy and Political sciences</li> </ul>	<ul style="list-style-type: none"> <li>-Master and PhD theses in specified disciplines</li> <li>-International publishing of researches</li> <li>-Saving of lost food due to spoilage and spreading the trial all over the ARE</li> </ul>	24 Month	The University
Diabetes mellitus and cardiovascular diseases	<ul style="list-style-type: none"> <li>- Biochemistry</li> <li>- Nutrition chemistry</li> <li>- Pharmacology</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Medicine</li> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>-Master and PhD in the specified disciplines</li> <li>-International publishing of scientific researches</li> </ul>	12 Month	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		-Faculty of Nursing			
Increasing rate of Aquaculture industry in Southern Upper Egypt	<ul style="list-style-type: none"> <li>- Fish diseases</li> <li>- Fish management</li> <li>- Fish preservation and processing</li> <li>- Pharmaceuticals</li> <li>- Animal Hygiene</li> </ul>	Faculty of Veterinary Medicine	<ul style="list-style-type: none"> <li>- Increased rate of aquaculture</li> <li>- Fish preservation and industry</li> <li>-Master and PhD in specified disciplines</li> <li>-International publishing of scientific research</li> </ul>	24 Month	The University
Chemical Hazards in foods	<ul style="list-style-type: none"> <li>- Surveillance studies on the levels of (heavy metals, pesticides, antimicrobials, hormonal residues and natural toxins) in foods.</li> <li>- Trace the different sources</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Medicine</li> <li>-Faculty of</li> </ul>	<ul style="list-style-type: none"> <li>-Master and PhD degrees in the specified disciplines</li> <li>-International publishing of</li> </ul>	48 Months	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>of heavy metals residues in foods</p> <ul style="list-style-type: none"> <li>- Development of new methods for control of the elevated levels of chemical residues in some foods</li> </ul>	Pharmacy	<p>scientific researches</p> <ul style="list-style-type: none"> <li>-Consumer awareness booklets</li> <li>-Diminished sources of heavy metals and residues in food</li> </ul>		
Alternative medicine and new methods for curing animal diseases	<ul style="list-style-type: none"> <li>- Stem cell uses and applications</li> <li>- Surgery and anesthesia</li> <li>- Veterinary Pharmacology</li> <li>- Animal medicine</li> <li>- Infectious diseases</li> <li>- Anatomy</li> </ul>	Faculty of Veterinary Medicine	<ul style="list-style-type: none"> <li>- Reduced chemical residues in food chain</li> <li>-Master and PhD degrees in specified disciplines</li> <li>-International publishing of</li> </ul>	24 Month	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			scientific researches		
Developing Animal wealth in Egypt	<ul style="list-style-type: none"> <li>- Non-infectious diseases</li> <li>- Infectious diseases</li> <li>- Viral and bacterial diseases in Poultry</li> <li>- Animal and Poultry nutrition</li> <li>- Veterinary Theriogenology and AI</li> <li>- Veterinary Clinical pathology</li> <li>- Animal and Poultry welfare</li> <li>- Animal and Poultry Hygiene</li> <li>- Parasite control</li> <li>- Bacteriology</li> <li>- Virology</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>-Increased rate of animal production of meat and milk</li> <li>-Increased rate of meat and egg production from poultry</li> <li>-International publishing of scientific researches in specified disciplines</li> <li>-Master and PhD degrees in specified</li> </ul>	36 Month	<ul style="list-style-type: none"> <li>-The University</li> <li>-External funding agencies</li> </ul>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			disciplines		
Application of new methods in diagnosis of animal and poultry diseases	<ul style="list-style-type: none"> <li>• Veterinary endoscopy and ultrasonography</li> <li>• Clinical pathology</li> <li>• Molecular biology</li> <li>• Nanotechnology</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Agriculture</li> <li>-Faculty of Graduate studies in advanced sciences</li> </ul>	<ul style="list-style-type: none"> <li>-Rapid and precise diagnosis of animal and poultry diseases</li> <li>-Combating emerging and infectious diseases</li> <li>-International publishing of scientific researches</li> <li>-Master and PhD degrees</li> </ul>	36 Month	The University
Non-traditional animal feeds	<ul style="list-style-type: none"> <li>- Animal Nutrition</li> <li>- Biochemistry</li> <li>- Internal Medicine</li> </ul>	-Faculty of Veterinary Medicine	-Overcoming the problem of diminished	24 Month	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Animal and Poultry Welfare</li> <li>- Poultry diseases</li> <li>- Ichthiology</li> </ul>	-Faculty of Agriculture	<ul style="list-style-type: none"> <li>agricultural lands</li> <li>-Provision of a huge portion of agricultural lands and its use in production of human food-producing crops</li> <li>-Growing the animal wealth</li> <li>-International publishing of scientific researches</li> <li>-Master and PhD degrees</li> </ul>		
Increasing productive efficiency of farm	<ul style="list-style-type: none"> <li>- Theriogenology and AI</li> <li>- Physiology</li> </ul>	-Faculty of Veterinary	-Improved productive	36 Month	The University



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
animals through embryo banks and genetic improvement	- Genetics	Medicine -Faculty of Agriculture	efficiency of farm animals (meat and milk) -Overcoming infertility problems in farm animals -International publishing of scientific researches -Master and PhD degrees		
Overcoming/Combating heat stress problems due to climatic changes	- Animal hygiene - Animal welfare - Theriogenology - Animal Medicine - Poultry diseases	-Faculty of Veterinary Medicine -Faculty of Agriculture	-Acclimation of farm animals and poultry to sudden climatic changes -Diminished heat	12 Month	-The University -External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			stress problems in animals and poultry -Increased productive efficiency -International publishing of scientific researches - Master and PhD degrees		
Combating emerging infectious diseases in farm animal and poultry	<ul style="list-style-type: none"> <li>- Animal Hygiene</li> <li>- Epidemiology</li> <li>- Bacterial and viral diseases in farm animals</li> <li>- Bacterial and viral diseases in Poultry</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>-Combating infectious and emerging diseases</li> <li>-Protection of humans against zoonotic diseases</li> </ul>	24 Month	The University  External Funding sources

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Animal welfare</li> <li>- Infectious diseases</li> <li>- Bacteriology</li> <li>- Immunology</li> <li>- Virology</li> <li>- Meat Hygiene</li> <li>- Animal quarantine</li> <li>- Forensic Medicine</li> <li>- External and internal parasites in farm animals</li> </ul>		<ul style="list-style-type: none"> <li>-International publishing of scientific researches</li> <li>-Master and PhD degrees</li> </ul>		
Vaccine production against emerging and infectious diseases	<ul style="list-style-type: none"> <li>- Avian influenza and other bacterial and viral diseases in Poultry</li> <li>- Bacterial and Viral diseases in farm animals</li> <li>- Equine viral and bacterial diseases</li> <li>- Virology</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Medicine</li> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>-Vaccines and antisera for combating emerging and infectious diseases in animals and Poultry</li> <li>-International</li> </ul>	36 Month	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>- Bacteriology and immunology</li> <li>- Molds</li> <li>- Parasitology</li> </ul>		<ul style="list-style-type: none"> <li>publishing of scientific researches</li> <li>-Master and PhD degrees</li> </ul>		
Human protection against zoonotic diseases	<ul style="list-style-type: none"> <li>- Zoonoses</li> <li>- Food-borne diseases of animal origin</li> <li>- Bacteriology</li> <li>- Virology</li> <li>- Parasitology</li> <li>- Zoonotic diseases</li> <li>- Poultry diseases</li> <li>- Animal and environmental hygiene</li> <li>- Animal and poultry welfare</li> <li>- Food Control</li> <li>- Veterinary Pharmacology</li> </ul>	<ul style="list-style-type: none"> <li>-Faculty of Veterinary Medicine</li> <li>-Faculty of Medicine</li> <li>-Faculty of Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>- Contribution toward protection of Egyptian citizens against one of the zoonotic diseases</li> <li>- Raising awareness of citizens on danger and methods of protection against zoonotic diseases</li> <li>- International</li> </ul>	36 Month	The University

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			Publishing of scientific researches -Master and PhD degrees		
Basic physical therapy sciences	-Uses of electromagnetic fields. -Preventative and rehabilitation programs. -using of different therapeutic modalities in the field of physical therapy. -studies about Three dimensional motion analysis for healthy. -studies about different types of pollution and their relation to health.	Faculty of Physical Therapy	Master and PhD theses – International publications in peer-reviewed journals	24 months	Beni-Suef University – External funding agencies
Biomechanics	-Three dimensional motion analysis for patients after upper	Faculty of Physical	Master and PhD theses –	24 months	Beni-Suef University –

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	and lower limb injuries, spinal cord injuries and neuromuscular disorders. -Studies about enhancing core body stability and strengthening programs for healthy.	Therapy and Medicine	International publications in peer-reviewed journals		External funding agencies
Physical Therapy for internal medicine	-Physical Therapy functional evaluation and rehabilitation for cardiovascular disorders. -Physical Therapy rehabilitation for patients with chest diseases. -Studies in geriatrics rehabilitation. -The role of physical therapy in intensive care unit and after cardiothoracic surgeries.	Faculty of Physical Therapy and Medicine	Master and PhD theses – International publications in peer-reviewed journals	12 months 12 months 12 months 12 months	Beni-Suef University – External funding agencies
Physical Therapy for woman and pediatric	-Role of physical therapy in evaluation and management of	Faculty of Physical	Master and PhD theses –	24 months	Beni-Suef University –

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
health	<p>postural deformities in pediatrics in different ages.</p> <p>-Motion analysis for healthy and handicapped pediatrics.</p> <p>-Different physical therapy evaluation methods for handicapped pediatrics.</p> <p>-Studies about the effect of different environmental factors on pediatrics growth and development.</p> <p>-Physical Therapy modalities for evaluating and managing neonatal problems.</p> <p>-Evaluation and management for problems associated with productive years for women such as Pelvic floor muscle disorders.</p>	Therapy, Nursing and Medicine	International publications in peer-reviewed journals	<p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p> <p>12 months</p>	External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<ul style="list-style-type: none"> <li>-Early discovery for osteoporosis in postmenopausal period in Beni-Suef governorate.</li> <li>-Early discovery for breast cancer for women in Beni-Suef governorate.</li> <li>-Woman recognition about the effect of nutrition on their health.</li> </ul>			<p>12 months</p> <p>12 months</p> <p>12 months</p>	
Physical Therapy for skin and integumentary system.	<ul style="list-style-type: none"> <li>-The role of physical therapy in managing different skin diseases.</li> <li>-The role of physical therapy in rehabilitation of postural deformities after burn.</li> <li>-The role of physical therapy in rehabilitation after tumor removal surgeries.</li> </ul>	Faculty of Physical Therapy, Nursing and Medicine	Master and PhD theses – International publications in peer-reviewed journals	<p>12 months</p> <p>12 months</p> <p>12 months</p>	Beni-Suef University – External funding agencies





General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	-Evaluation and rehabilitation of motion disturbance resulting from neurological diseases and using orthoses and prostheses for such disorders.			12 months	
Community Health Nursing	<ul style="list-style-type: none"> <li>- Study the University Student's towards the relation between Blood groups &amp; Obesity Disease.</li> <li>- Study the University workers awareness towards hepatitis (c) diseases &amp; way of preventions.</li> </ul>	Faculty of Nursing and Medicine	Master and PhD theses – International publications in peer-reviewed journals	12 months  12 months	Beni-Suef University – External funding agencies
Medical Surgical, critical care & Emergency Nursing	<ul style="list-style-type: none"> <li>- Cardiovascular Nursing</li> <li>- Patient's Safety</li> <li>- Urology Nursing</li> <li>- Complementary Nursing</li> </ul>	Faculty of Nursing and Medicine	Master and PhD theses – International publications in peer-reviewed	36 months	Beni-Suef University – External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			journals		
Nursing Administration	<ul style="list-style-type: none"> <li>• Improve Quality of Health sectors services.</li> <li>• Nursing Administration</li> </ul>	Faculty of Nursing and Medicine	Master and PhD theses – International publications in peer-reviewed journals	6 months 6 months	Beni-Suef University – External funding agencies
Nursing Psychiatrics	<ul style="list-style-type: none"> <li>- The Role of Nanotechnology in the future Of Psychiatrics</li> <li>- Communication between Medicine &amp; Psychology</li> <li>- Using Drama In Managements</li> </ul>	Faculty of Nursing and Medicine	Master and PhD theses – International publications in peer-reviewed journals	12 months 6 months 12 months	Beni-Suef University – External funding agencies

#### 4. The action plan for Engineering Sciences research fields

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Mechanical Engineering (Metal forming)	1- Metal forming using CAD	-Faculty of Industrial Education	-Master and PhD degrees	12 Month	-Beni-Suef University
	2- Innovative methods in metal forming	-Faculty of Engineering	-Increased rate of international publishing in reputed international journals with high impact factors	12 Month	-External funding agencies
	3- Improving the mechanical properties of cast iron			12 Month	
Mechanical engineering (Energy)	1- Renewable energy and removable energy systems	-Faculty of industrial education	-Master and PhD degrees	12 Month	-Beni-Suef University
	2- Water desalination using renewable energy sources	-Faculty of Engineering	-Increased rate of international publishing in reputed international journals with high impact factors	12 Month	-External funding agencies
	3- Waste treatment	-Faculty of Sciences		12 Month	
Analytical and environmental	1- Removal of organic and inorganic pollutants	-Faculty of Industrial	-Master and PhD degrees -Increased rate of	12 Month	-External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
chemistry	2- Determination of some metal ions	Education -Faculty of Sciences	international publishing in reputed international journals with high impact factors	12 Month	-Beni-Suef University
Synthetic organic chemistry	1- Organic synthesis of dyes 2- Water treatment	Faculty of Industrial Education -Faculty of Sciences	-Master and PhD degrees -Increased rate of international publishing in reputed international journals with high impact factors	12 Month	-Beni-Suef University -External funding agencies
Textile chemistry and technology	1- Chemistry and technology of thickening agents and textile printing 2- Chemistry and technology of dyeing and colorants	Faculty of Industrial Education -Faculty of Sciences	-Master and PhD degrees -Increased rate of international publishing in reputed international journals with high impact factors	24 Month 24 Month	-Beni-Suef University -External funding agencies
Spinning and	1- Spinning-Weaving and	Faculty of	- Master and PhD degrees	12 Month	-Beni-Suef

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
textile, Knitting	knitting	Industrial Education	-Increased rate of international publishing in reputed international journals with high impact factors	12 Month	University -External funding agencies
	2- Yarn testing			12 Month	
	3- Fabric testing			12 Month	
	4- Non-woven			12 Month	
	5- Hand weaving			12 Month	
Architectural Engineering	1- Environmental design	- Faculty of Industrial Education -Faculty of Engineering	- Master and PhD degrees -Increased rate of international publishing in reputed international journals with high impact factors	12 Month	- Beni-Suef University -External funding agencies
	2- Building technology			12 Month	
	3- Urban planning			12 Month	
Civil Engineering (Industrial Education)	1- Irrigation	- Faculty of Industrial Education -Faculty of Engineering	- Master and PhD degrees -Increased rate of international publishing in reputed international journals with high impact factors	12 Month	- Beni-Suef University -External funding agencies
	2- Water resources			12 Month	
	3- Soil mechanics			12 Month	
	4- Environmental pollution in middle Egypt			12 Month	
	5- Highway and Airports			12 Month	
Regional Planning	- Highway Planning	Faculties of	International	24 months	Beni-Suef

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>1. Studies to reduce highway accidents in Northern Upper Region-Egypt.</p> <p>2. The role of programs, software and modern technologies in reducing highway accidents</p>	engineering and Industrial Education	<p>publications</p> <p>Master and Ph.D. theses</p>		<p>University</p> <p>External funding agencies</p>
	<p>Projects Management planning:</p> <p>1. Assessing the efficiency of the communications management in the development projects of the Northern Upper Region – Egypt.</p> <p>2. Studying the efficiency</p>	Faculty of engineering	<p>International publications</p> <p>Master and Ph.D. theses</p>	<p>12 months</p> <p>12 months</p>	<p>Beni-Suef University</p> <p>External funding agencies</p>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	of using security and safety standards - in the development projects of Northern Upper Region – Egypt - on reducing the casualty rates. 3. Assessing the population satisfaction for planning projects in New Beni-Suef City.			12 months	
	Green Planning: 1. Studies on applying the sustainability and green planning rules. 2. Reducing the acoustic pollution resulting from using roads.	Faculty of engineering	International publications Master and Ph.D. theses	12 months 12 months	Beni-Suef University External funding agencies
	Electrochemical	1- Studying the corrosion	Faculty of	International	36 months



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Engineering	<p>prevention and inhibitors</p> <p>2- Studying the wastewater treatment methods from the chemical engineering point of view.</p> <p>3- Studying the applications of Electro-hydrodynamics.</p>	engineering and faculty of Graduate Studies for Advanced Sciences	<p>publications</p> <p>Master and Ph.D. theses</p>		<p>University R/D Projects funded by university-industry collaboration</p>
Environmental Engineering	<p>1-Studyig different cleaner production applications.</p> <p>2- Studying the water and wastewater treatment methods including Solid waste treatment.</p> <p>3- Studying modern technologies in solar energy and biofuel &amp; biodiesel and methods of hydrogen Production.</p>	Faculties of Engineering, Graduate Studies for Advanced Sciences, and Industrial education	<p>International publications</p> <p>Master and Ph.D. theses</p>	24 months	<p>1. University</p> <p>2. R/D Projects funded by university-industry collaboration</p> <p>3. External Grants</p>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Material Science and structure materials	1- Studying modern technologies in producing Ceramics, Nanomaterials, Polymers and Nanocomposites.	Faculties of Engineering, Graduate Studies for Advanced Sciences, and Industrial education	International publications Master and Ph.D. theses	36 months	1. University 2. R/D Projects funded by university-industry collaboration 3. External Grants
Structural Engineering	- Structural analysis: 1- Using new programs and new analytical methods for analyzing the behavior of different types of structures. 2- Studying the Cyclical behavior of concrete beams reinforced by carbon fiber strips. 3- Seismic Analysis of	Faculty of engineering	- Masters and PhD theses in this field. - International publications in high-impact factor journals	36 months	BSU External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>connections between beams and columns in each of the metal frames and reinforced concrete.</p> <p>4- Developing "solid 65" element used in the modeling of concrete structures using the finite element program "ANSYS".</p> <p>5- The design equations for the steel columns filled with concrete.</p>				
	<p><b>-Building Materials:</b></p> <p>1- Studying the effect of using new and innovative materials on the properties of concrete samples.</p> <p>2- Studying new methods and materials for repairing</p>	Faculty of engineering	<p>- Masters and PhD theses in this field.</p> <p>- International publications in high-impact factor journals</p>	36 months	BSU External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>and strengthening of structures.</p> <p>3-Improve the properties of reinforced concrete using nanotechnology.</p> <p>4- Studying the properties of eco-friendly reinforced concrete.</p> <p>5- Study and improve the behavior concrete subjected to elevated temperature.</p> <p>6- Studying the properties and behavior of self-compacted concrete.</p>				
	<p>Reinforced concrete structures:</p> <p>-Studying the behavior of different types of</p>	Faculty of engineering	<p>- Masters and PhDs theses in this field.</p> <p>- Increased research internationally published</p>	36 months	<p>University</p> <p>External funding agencies</p>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	reinforced concrete elements that have new properties analytically and/or practically.		in this specialization in high-impact factor journals		
	<b>Steel Structures:</b> -Studying the behaviour of different types of steel structures elements that have new properties analytically and/or practically.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies
	<b>- Soil Mechanics and Foundation Engineering:</b> - Soil reinforcing using new types of materials. - Soil bearing capacity. - Analyzing and design of different types of	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	foundations				
	<p><b>-Construction Management:</b></p> <p>1- Studying different types of contracts and their effects on construction management.</p> <p>2- Studying different methods of prediction and management of projects.</p>	Faculty of engineering	<p>- Masters and PhDs theses in this field.</p> <p>- Increased research internationally published in this specialization in high-impact factor journals</p>	36 months	University External funding agencies
	<p>Structural design (R.C. and Steel structures):</p> <p>- Structural design using eco-friendly materials.</p> <p>-Structural design for private enterprises.</p> <p>-Design of facilities for loading denominated in</p>	Faculty of engineering	<p>- Masters and PhDs theses in this field.</p> <p>- Increased research internationally published in this specialization in high-impact factor journals</p>	36 months	University External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	special cases.				
Public Works Engineering	-Transportation Engineering: - Studying the traffic composition, Roads, intersections and other parameters of Beni-Suef roads.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies
	-Highway Engineering: - Using new techniques and innovative materials in pavement design and subgrade strengthening.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies
	- Sanitary & Environmental Engineering: - Water treatment using	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research	36 months	University External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	new technologies. - Industrial waste water treatment.		internationally published in this specialization in high-impact factor journals		
	-Surveying, Remote Sensing & GIS: - Studying new techniques in remote sensing and GIS.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies
Hydraulics, Water Resource & Irrigation Engineering	1- Using models to analyze the behavior of different types of aquatic plants and dams. 2- Using models to analyze the elements of flow in pipes and open channels.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	36 months	University External funding agencies



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	3- A study of new technologies in the field of surface water and groundwater management.				
Electrical measurements	1- Working in establishing a Electrical Measurements lab. and getting accreditation for it in our Faculty to assist the undergraduate , graduate students and all the factories in upper Egypt. 2- Motivate the graduate electrical engineers to do their research in the faculty.	Faculty of engineering	- Masters and PhDs theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	12 months	University , External funding agencies
Power and Energy	- Study, analyze and	Faculty of	- Internationally	12 months	University,

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Measurements	simulate the power and energy in presence of noise.	Engineering	published paper - Making a cooperation between our faculty and electricity meters manufactures in Egypt		External funding agencies
Renewable Energy- Solar Energy	- Study and investigate the DG's and inverters problems in PV solar cell	Faculty of engineering	- Masters and PhD theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	24 months	University, External funding agencies
Analysis of Egyptian Electrical Network	- Study, analyze, simulate and measure the Egyptian Electrical Network in certain area	Faculty of engineering	- Masters and PhD theses in this field. - Increased research internationally published in this specialization in high-impact factor	12 months	University, External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			journals		
The effect of Network on household appliances	<ul style="list-style-type: none"> <li>- Study, analyze simulate, measure and test the effect of Network on certain household appliances.</li> <li>- Making investigation on the network problems effect on energy meter</li> </ul>	Faculty of engineering	<ul style="list-style-type: none"> <li>- Masters and PhD theses in this field.</li> <li>- Increased research internationally published in this specialization in high-impact factor journals</li> </ul>	12 months	University, External funding agencies
Materials and production engineering	1- Mechanical properties enhancement of the steel raw materials for spare parts production	Faculty of Engineering, Faculty of Industrial Education, Faculty of Science and faculty of graduate studies for Advanced Sciences	<ul style="list-style-type: none"> <li>- Masters and PhD theses in this field.</li> <li>- Increased research internationally published in this specialization in high-impact factor journals</li> </ul>	12 months	University budget and Externally (factories and companies)
	2- Production of new alloys from steel used as an economic equivalent for the		<ul style="list-style-type: none"> <li>- Manufacturing spar parts of the production machines to factories in</li> </ul>	12 months	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	present expensive alloys		the industrial zone in Beni-Suef	12 months	
	3- Enhancement the mechanical properties of cast iron raw materials used of spar parts production			12 months	
	4- Production of new alloys from cast iron used as an economic equivalent for the present expensive alloys				
	1- Researches of production and creation of composite material which are	Faculty of Engineering, Faculty of Industrial	- Overcome the problem of lack of spare parts - Provide a large part of the hard currency	12 months	University budget, Production revenues for

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>using in spare parts of the power plants</p> <p>2- Create and produce a new and advanced materials used in the solar power parts components</p> <p>3- Investigation of spare parts production for the cement production lines spare parts from an alternative materials which enhance the parts performance</p> <p>4- Researches of converting Agricultural Waste to a construction materials</p>	<p>Education, Faculty of Science and faculty of graduate studies for Advanced Sciences</p>	<p>- Development and optimization of the existing scientific and technical potential of the university faculties</p> <p>- Granting Master degrees and doctoral to students in the specialty mentioned</p> <p>-publishing international scientific Researches</p>	<p>24 months</p> <p>24 months</p> <p>12 months</p>	<p>these materials</p>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Industrial engineering	-Manufacturing the university faculties requirements of the furniture and decoration using the excess capacity of the equipment and machinery in the University workshops	Faculty of Engineering, Faculty of Industrial Education, Faculty of Science and faculty of graduate studies for Advanced Sciences	- Masters and PhD theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	60 months	University budget
	1 -Detection and examination of the welding defects and methods of treatment research	Faculty of Engineering, Faculty of Industrial Education, Faculty of Science and faculty of graduate studies for Advanced Sciences	- Masters and PhD theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	12 months	University budget
	2 -Detection and examination of defects castings and methods of treatment research . 3 -Detection and screening	Faculty of Engineering, Faculty of Industrial Education, Faculty of Science and faculty of graduate studies for Advanced Sciences	- Masters and PhD theses in this field. - Increased research internationally published in this specialization in high-impact factor journals	12 months 12 months	University budget

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	operation and configuration defects and methods of treatment research	Sciences			
Tribology and troubleshooting	1. Failure analysis of the facilities, equipment production lines mechanical parts and petroleum production lines machines.	Faculty of Engineering, Faculty of Industrial Education, Faculty of Science and faculty of graduate studies	- Contribute to solving the problems of production lines companies engineering industries, energy -Granting Master degrees and doctoral to students in the specialty mentioned	24 months	University budget
	2. Investigation of improving the performance of lubricants.	for Advanced Sciences	-publishing international scientific Researches	12 months	
	3. Analysis of surfaces stresses exposed to erosion and corrosion			12 months	

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
Industrial engineering	1. Preparation of economic and technical feasibility studies for small projects.	Faculty of Engineering.	- Masters and PhD theses in this field.	60 months	University Budget
	2. Raw materials and engineering materials characterization in accordance with the global international standards.	Faculty of Industrial Education, Faculty of Science and faculty of graduate studies for Advanced Sciences	- Increased research internationally published in this specialization in high-impact factor journals	12 months	
	3. Safety requirements review for industrial projects			12 months	
	4. Training and technical support for engineers and technicians in various areas of the industry.			12 months	
	5. Environmental study and			12 months	



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	investigation of the environmental pollution measurements of various industries and societal behaviors to reduce its harm effects .				
Mechanical power and energy (using the solar energy)	<p>1- Examine the use of solar energy in water distillation.</p> <p>2- Study of the implementation of the idea of greenhouses and the availability of computerization.</p> <p>3- Study the development of solar cell industry for the highest heating efficiency.</p> <p>٤- Study the performance of heating systems by solar energy.</p>	Faculty of engineering	<ul style="list-style-type: none"> <li>- The production of solar cells using a variety of water distillers' generators of energy.</li> <li>- Solar energy application in homes</li> <li>- Master and PhD theses</li> <li>- internationally published papers in solar energy at a rate of 10% annually</li> </ul>	60 months	BSU budget and External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	5- Study ways to improve the performance of solar energy.				
Heat exchangers	1- Environmental study Industries distinct eastern desert area in Beni-Suef. 2- Studies on the outstanding work of the industries in the city of Beni-Suef and how to connect them together to serve the community.	Faculty of engineering and faculty of science	- Master and PhD theses - Internationally published papers in in high impact factor journals	24 months  24 months	BSU budget and External funding agencies
Mechanical design and production (investigation of the methods and steps of materials production)	1- The production of super alloys technology. 2- Study the most appropriate way for the use of building materials in the construction in the eastern	Faculty of engineering	- Master and PhD theses	12 months  12 months	BSU budget and External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	area of Beni-Suef. 3- Reducing the pollution resulting from the fuel combustion			12 months	
Mechanical design and production	1- Studying the operations quality control 2- Industrial projects.	Faculty of engineering	- Internationally published papers in in high impact factor journals	36 months	BSU budget and External funding agencies
Mechanical design and production	1- Good alloy production technology. 2- Production of ceramic materials. 3- The production of polymeric materials.	Faculty of engineering	- Master and PhD theses	12 months 12 months 12 months	BSU budget and External funding agencies
Mechanical design and production (production of nano raw materials)	1- Study to improve the production of nanosize materials. 2- Pure silicon production.	Faculty of engineering	- Internationally published papers in in high impact factor journals	24 months	BSU budget and External funding agencies
Sports equipment	1-The application of	Faculty of	- Master and PhD theses	36 months	BSU budget and

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
and machinery	modern technology in the maintenance and repair of sports devices and machines. 2- Create devices and modern gym machines.	engineering		36 months	External funding agencies
Hardware and machinery vibrations	-Studying the range of machines vibrations	Faculty of engineering	- Internationally published papers in in high impact factor journals	36 months	BSU budget and External funding agencies
Internal combustion engines	1-studying the engines efficiency 2- studying the effect of different types of fuel on the engines performance	Faculty of engineering	- Master and PhD theses	36 months	BSU budget and External funding agencies
Medical equipment and machinery	- Study the maintenance and repair of medical devices and machinery	The faculties of engineering, agriculture and	- Internationally published papers in in high impact factor	36 months	BSU budget and External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	technology	science.	journals		
Dynamics of mechanical equipment automatic control	-Study the impact of the rate of lubrication on the machines and vehicles.	The faculties of engineering, medicine and nursing.	- Master and PhD theses	36 months	BSU budget and External funding agencies
Tribology and lubrication	-Study the impact of the rate of lubricant to reduce the friction between the rotating parts in machines and vehicles.	The faculties of engineering, medicine and nursing.	- Internationally published papers in in high impact factor journals	36 months	BSU budget and External funding agencies
The study of continuous ignition	1- Study the advantages of using natural gas in transportation 2- Investigation of using micro-cells in the energy storage. 3- Study the Education of pollution resulting from	Faculty of engineering and faculty of science	- Master and PhD theses	12 months 12 months 12 months	BSU budget and External funding agencies

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	<p>the combustion of all kinds of fuel.</p> <p>4- Develop and enhance designs for engines so that they are lighter and higher in capacity.</p>			12 months	
Planning for Engineering Education	<p>1- Assessing the role of regulations and programs of the Beni-Suef, Faculty of Engineering in the development plan of Northern Upper Region – Egypt. (In addition: the regulations development, and programs description).</p> <p>2-Evaluation of the roles of architecture programs in faculty of engineering to achieve the regional</p>	<p>Faculties of Engineering, Architectural Engineering, Education, and Industrial Education</p>	<p>Regional community serving</p>	24 months	<p>BSU budget</p> <p>External funding agencies</p>

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
	planning goals for the Northern Upper Region – Egypt (in addition: regulations development / programs characterization / development the capabilities of the faculty members and evaluation systems)				
Biomedical Engineering	Early detection of breast cancer	Faculty of computers and Faculty of Medicine	<ul style="list-style-type: none"> <li>- Smart system for early detection of breast cancer</li> <li>- Master and PhD theses</li> <li>- International publications in peer-reviewed journals</li> </ul>	24 months	Third parties such as the Science and Technology Development Fund (STDF) Beni-Suef University
	Liver disease	Faculty of	-intelligent classification	24 months	- BSU budget

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
		computer Sciences and faculty of Medicine	system for liver fibrosis and early detection of Hepatitis C - Master and PhD theses - International publications in peer-reviewed journals		- Third parties such as - STDF - Ministry of Health.
Smart Environment	Sustainable development of agricultural bird sanctuaries and plants	Faculty of computers and faculty of Agriculture	Intelligent systems to follow the birds and plants in protected areas. - Master and PhD theses - International publications in peer-reviewed journals	12 months	Ministry of Environment, Ministry of Communications and European Union. - BSU budget
	Water and air pollution	Faculty of Computers and faculty of science	- Monitoring system to predict water and air pollution depends on the position	12 months	- University budget, Ministry of Environment, Ministry of



General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			sensitive detector to monitor pollution - Master and PhD theses - International publications in peer-reviewed journals		Communications and the European Union.
Sustainable development	Sustainable development in agriculture	Faculty of Computer and faculty of Agriculture	- Monitoring and control of birds in natural reserves such as Zaranik reserve in Sinai - Master and PhD theses - International publications in peer-reviewed journals	12 months	University budget, Ministry of Environment, Ministry of Communications and the European Union
Smart transportation Systems	Control methods using smart phones in various road conditions monitoring	FCI - CS and IS departments	- Apps control in compact sensors phones ways data is collected for later analysis to determine the	24 months	The Ministry of Communications - Ministry of Transport -

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			<p>causes of accidents or suffocation places on the roads.</p> <ul style="list-style-type: none"> <li>- Master and PhD theses</li> <li>- International publications in peer-reviewed journals</li> </ul>		<p>General Authority for Roads and Bridges</p> <ul style="list-style-type: none"> <li>- STDF</li> </ul>
Wireless Network	Network Logistic Services to serve the Suez Canal project	Faculty of computers and information – IT Department	<p>Increase the Suez Canal Corridor international logistics center revenues by</p> <ul style="list-style-type: none"> <li>• Enhance the existing logistics services.</li> <li>• Add new needed logistics services.</li> <li>• Satisfy the customer needed.</li> <li>• Granting Master and</li> </ul>	24 months	Ministry of Communications, STDF and ITIDA

General research fields	Specific research fields	Contributing faculties	Expected outcomes	Period during (2015-2020)	Funding agencies
			a Ph.D theses.		
<b>Robots</b>	<b>Multifunctional Robot (Walk, float and Fly)</b> <b>Synaptic</b>	<b>Faculty of computers (Department of information technology and Multimedia department)</b>	<ul style="list-style-type: none"> <li>- Multifunctional Robot (Walking, float and burn)</li> <li>- Master and PhD theses</li> <li>- International publications in peer-reviewed journals</li> </ul>	<b>24 months</b>	<b>Ministry of Communications, STDF and ITIDA</b>
<b>Smart Cities</b>	<b>Intelligent management and control system for roads service</b> <b>management system for</b>	<b>Faculty of computers and information</b>	<b>- Intelligent lighting system to save energy</b>	<b>24 months</b>	<b>University Budget</b> <ul style="list-style-type: none"> <li>- STDF</li> <li>- ITIDA</li> <li>-Electricity Authority</li> </ul>

## Mechanics of Implementing the Research Plan

The Implementation of the Research Plan will be done through the following routs:

1. The research papers carried out by academic staff members, which are usually done with co-operation with the Researches Centers, Egyptian and Foreign Universities.
2. The Academic theses fulfilled by graduate students through channel programs between professors of Egyptian and Foreign Universities.
3. Academic missions and scholarships either sponsored by the Egyptian government, or by foreign bodies.
4. Supporting research projects by the Unit of Supporting and Developing of Research, BSU.
5. Supporting research projects by the Research Endowment Fund.
6. Supporting Researches through research projects financed by national donors (like: STDF, Academy of Scientific Research & Development) and other international identities like (The European Union, Horizon 2020).

## Obstacles and Risks

In order to achieve success in developing and carrying out the University Research Plan, we have defined the obstacles and risks related to the research process so as to be able to deal with them properly. These risks and obstacles may be defined as follows:

- Changes of leadership and failure to ensure the availability of enough support to implement the plan.
- Inadequate financial resources necessary for implementing the plan.
- The emergence of problems in the surrounding community that were not pre-existing.
- Travelling of large numbers of experienced professors to Arab countries.
- Lack of some special devices in research laboratories in some disciplines.
- Insufficiency of areas allocated to some research laboratories and the difficulty of doing the required extensions due to the lack of available spaces.

## **Ways to overcome the obstacles in the way of implementing the plan**

1. Finding sources of self funding like Unit of research Support & Development of BSU, the Research Endowment Fund, and other national and international donors.
2. Encouraging getting externally funded fellowships, channel, full doctoral and post-doctorate scholarships.
3. Co-operation with research centers in the Egyptian and Foreign Universities.
4. Encouraging submitting to get research projects funding grants.
5. Stimulating international publications via assigning a number of awards and rewards to authors.

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***With our best wishes and expectations of a research and social improvement in all our Egyptian Universities and Research Centers.***

***All Best Luck***

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***Team of Editors of the Research Plan***

*The back cover photo represents the design of BSU Research City was created by Eng. Dr./ Hesham T. Al-Laithy, and the Research Plan cover was designed by Mr. Mostafa Morad.*