



Beni-Suef University

Measures of Interdisciplinary Research Success

[1] Specialized unit for International Publishing

The university has eight unique faculties specialized in critical interdisciplinary fields. These faculties are considered the first of their kind in Egypt and Middle East. These faculties are faculty of earth science, faculty of special needs science, institute of elderly science studies, faculty of post graduate studies for applied sciences, laser institute for research and application (LIRA), faculty of science of navigation and space technology, research institute of medical and aromatic plants, institute of small and medium enterprises. All research published in these eight faculties is interdisciplinary in addition to interdisciplinary research published in collaboration with other university faculties.

Scientific research in the university including interdisciplinary research is managed, and supervised by a separate unit "International Publishing Office". The office is responsible for stimulating scientific research as well as providing research funds and awards.

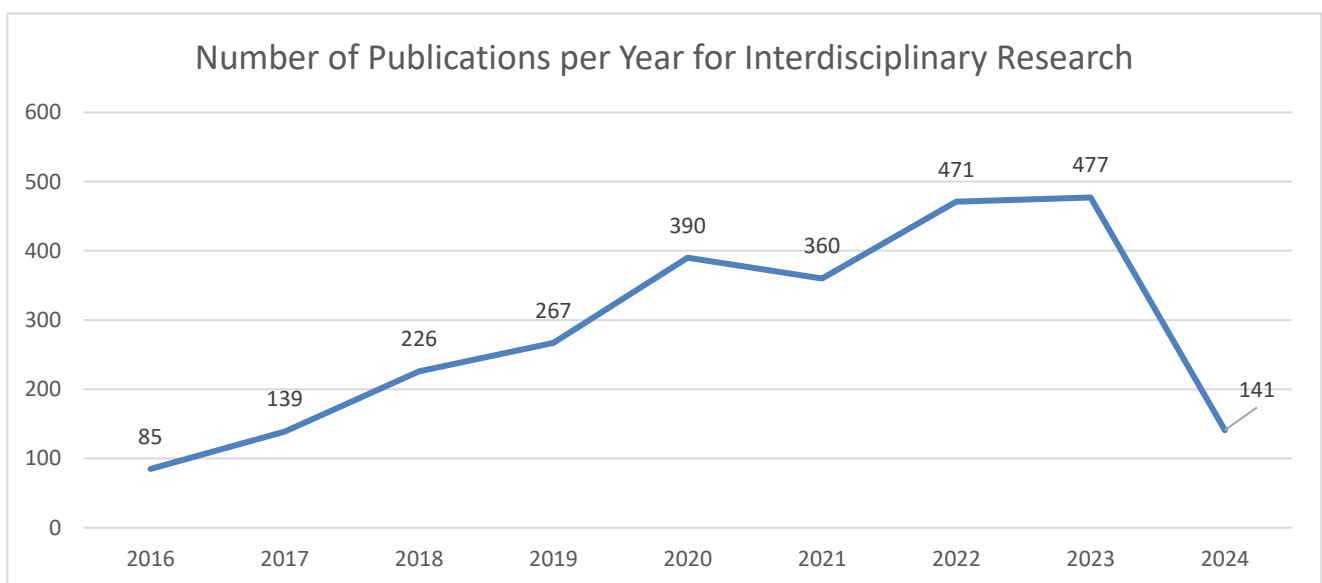
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The university has the "Project Finance and Support office" aiming at:

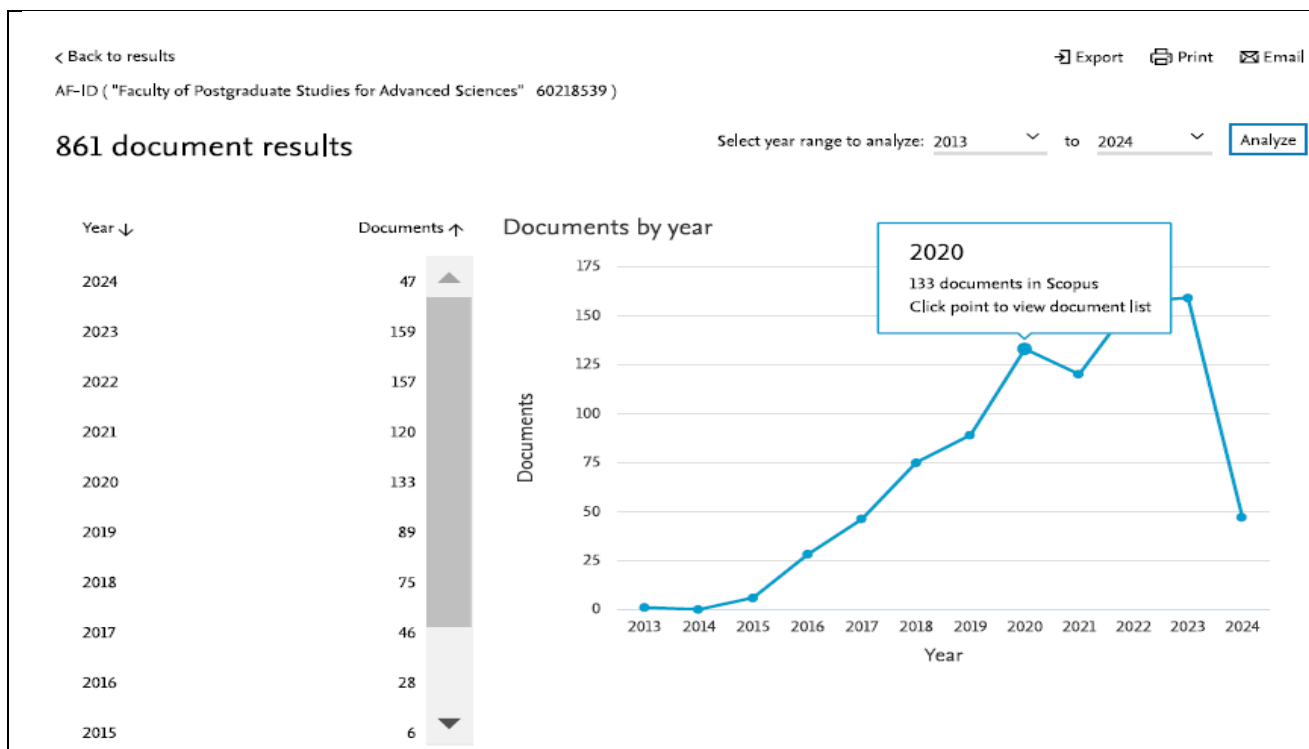
- Assisting faculty members in financing their research proposals
- Developing researchers in how to write competitive research projects
- Evaluating the submitted projects
- Following up on the funded projects and facilitates implementation procedures
- Evaluating final outputs of the funded projects
- Establishing local and international relations in cooperation with the International Cooperation Office to attract funded institutions
- Communicating with the innovations and the final outputs to the concerned institutions in the country
- Motivating faculty members for international publishing
- Holding an exhibition to display the outputs of research projects
- Enhancing teamwork among university faculty members
- Strengthening the relationship between university faculty members and professors in top international universities

[2] Growing Number of Research Publications

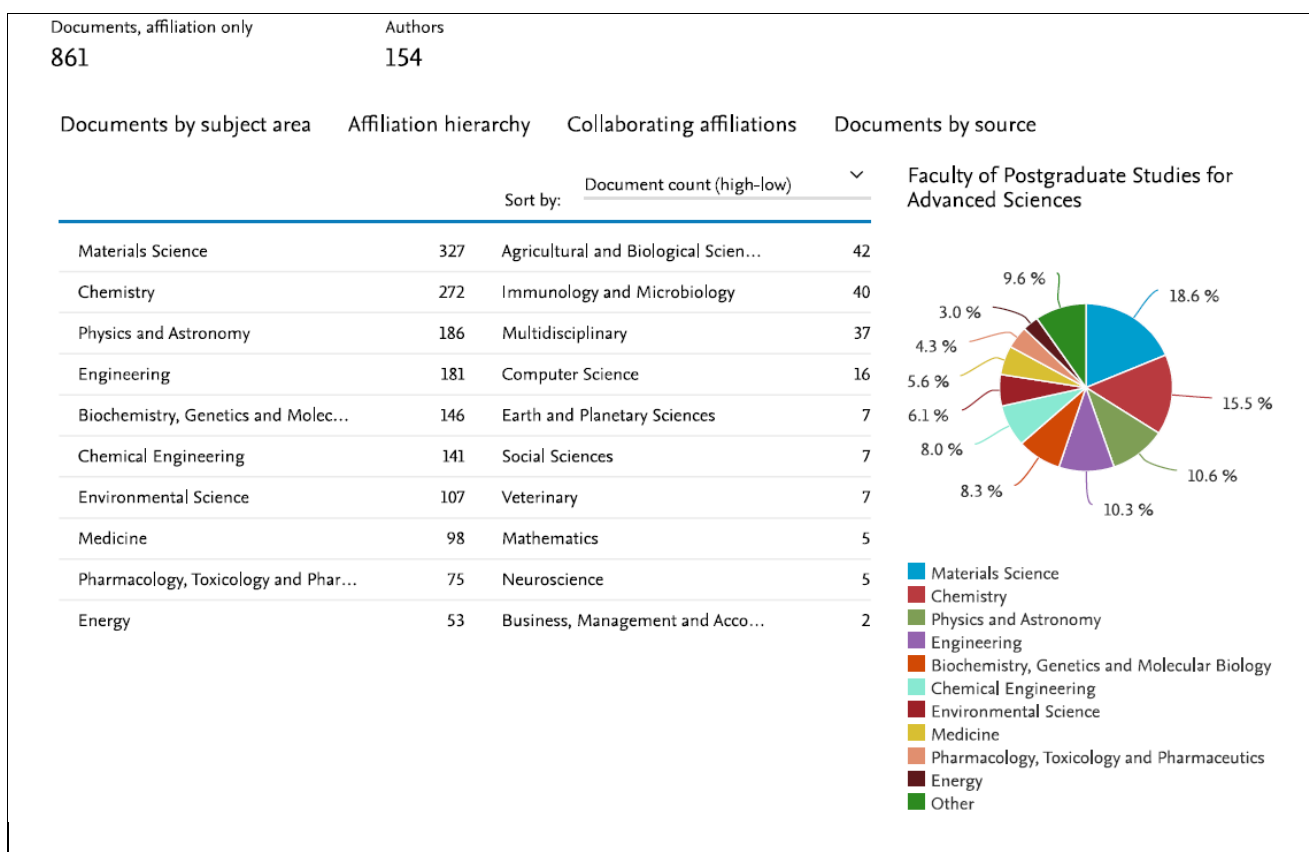
Interdisciplinary research is among the strongest research fields in the whole university. Thus, the university devote a huge effort in supporting interdisciplinary research. The number of publications in interdisciplinary fields increased dramatically during the last decade. According to scopus database, the number of publications in interdisciplinary research at Beni-Suef university increased from 85 in 2016 to 477 in 2023. Up to now -March 2024- interdisciplinary publications are 141 in the first quarter only. The following graph shows the growing number of per year publications of interdisciplinary research from 2016 to 2024.



The largest contributor in interdisciplinary research publications is the faculty of postgraduate studies for applied sciences as it alone contains four interdisciplinary departments in a close connection with the faculty of science and the faculty of medicine. The faculty published 861 interdisciplinary research science its establishment in 2013 to 2024 as described in the following figure from scopus.

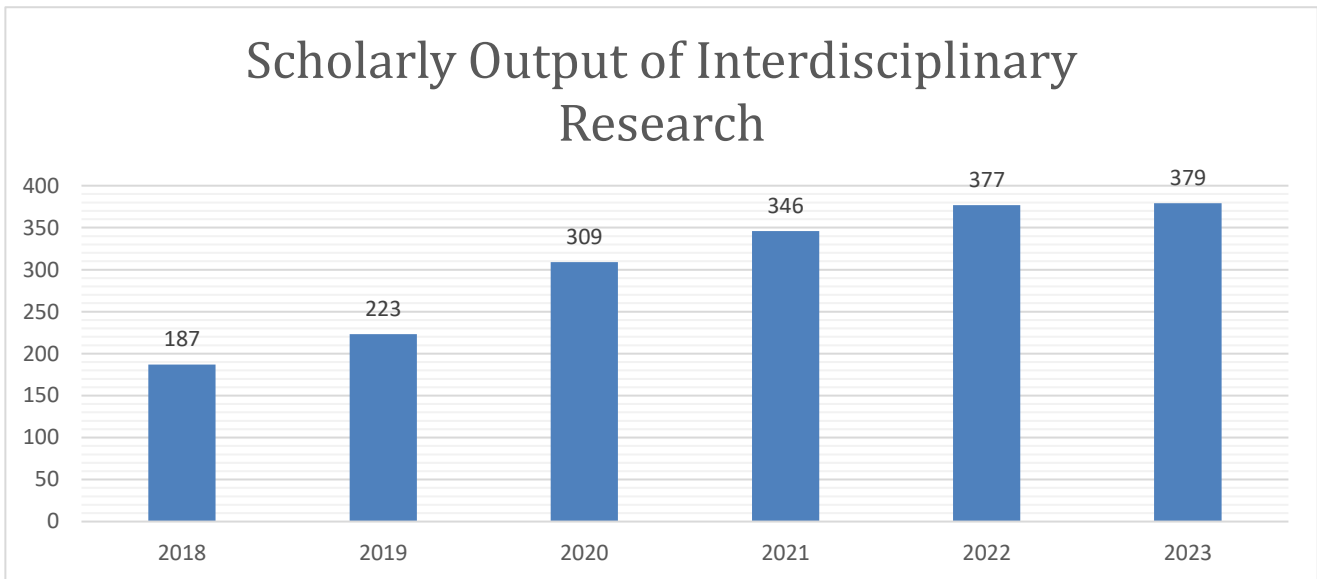


In addition to the large number of interdisciplinary research publications, faculty of postgraduate studies covers all field subjects especially for material science and chemistry. From total 861 publications, the faculty published 327 publication in material science and 272 publication in chemistry. The following graph represents the publication by subject area.



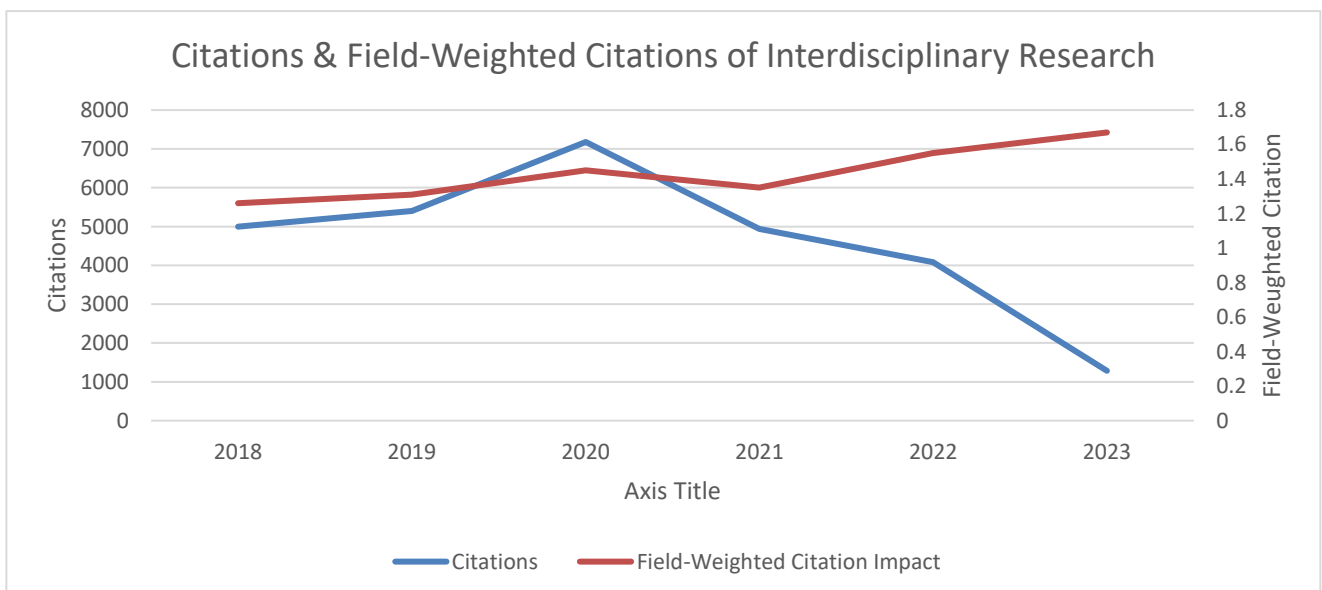
[3] Scholarly Output for Interdisciplinary Research

Scholarly output of interdisciplinary Research has been growing during the last 5 years. Based on data extracted from scopus, the scholarly output of interdisciplinary research increased from 187 in 2018 to 379 in 2023 as a result of the increasing support for interdisciplinary research especially during the years of pandemic of COVID-19. The following figure shows the growth of scholarly output of interdisciplinary research from 2018 to 2023.



[4] Number of Citations of Interdisciplinary Research

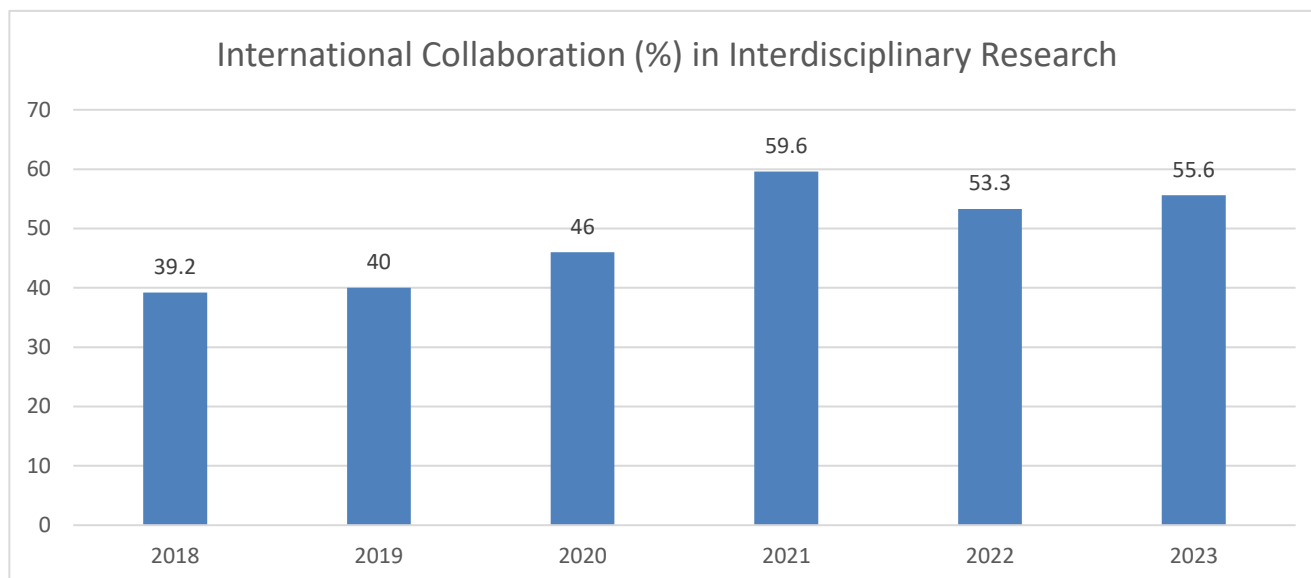
The total number of citations for interdisciplinary research has been increasing during the last five years in line with the total number of overall research in the university. The most important is the number of field weighted citation which has been remarkably increasing for interdisciplinary research during the last five years. The following figures show the number of citations and field weighted citations for interdisciplinary research compared to the overall university research citations.





[5] International Collaboration in Interdisciplinary Research

International collaboration in interdisciplinary Research is growing significantly in the last five years. The percentage of international collaboration increased from 39.2% in 2018 to 55.6% in 2023 based on data collected from scopus. The following figure represents the growth of international collaboration in interdisciplinary fields from 2018 to 2023.



[6] Interdisciplinary Research as a Vital Player in SDGs

Interdisciplinary Research is serving in promoting the SDGs amongst the university research. In analyzing the publications by SDG for the overall university, we find out that the majority of publication are concentrated in SDGs (3,7 and 6) respectively which are good health and well-being, affordable and clean energy and clean water and sanitation. These top three SDGs are the scope of interdisciplinary faculties in the university such as the faculty of postgraduate studies for applied science which includes material science and nanotechnology department as well as renewable energy science and engineering. Thus, interdisciplinary research works as the main driver of research publications in the university. The following figure shows the research publications by SDGs from 2018 to 2023 based on Scival.

SDG	Scholarly Output	Field-Weighted Citation Impact	Citation Count
SDG 1: No Poverty	1	6.88	28
SDG 2: Zero Hunger	99	1.82	1,221
SDG 3: Good Health and Well-being	1,898	1.57	24,896
SDG 4: Quality Education	23	0.80	92
SDG 5: Gender Equality	26	1.11	157
SDG 6: Clean Water and Sanitation	352	1.84	5,343
SDG 7: Affordable and Clean Energy	450	1.92	7,473
SDG 8: Decent Work and Economic Growth	70	3.04	1,435
SDG 9: Industry, Innovation and Infrastructure	164	1.97	2,530
SDG 10: Reduced Inequality	18	0.84	113
SDG 11: Sustainable Cities and Communities	101	1.94	1,107
SDG 12: Responsible Consumption and Production	132	2.63	2,451
SDG 13: Climate Action	96	2.85	2,087
SDG 14: Life Below Water	74	1.32	873
SDG 15: Life on Land	65	1.49	739
SDG 16: Peace, Justice and Strong Institutions	24	0.57	56

[7] Funded Projects in Interdisciplinary Research

The university facilitates the research fund for interdisciplinary research from different agencies. For example, Scientific Research and Technology Academy provided funds for projects in interdisciplinary areas. One of them belongs to Research Institute of Medicinal and Aromatic Plants titled “Coputationally Guided Promoting the Antioxidant Potential of Some Naturally Occurring proactive Secondary Metabolites Isolated From Egyptian Folk Medicinal Plants” and another one belongs to faculty of Earth titled “Towards an integrated system for the treatment of agricultural drainage water” in 2022.

[8] Patents in Interdisciplinary Research

Interdisciplinary faculties in the university were awarded a number of patents. For example, faculty of postgraduate studies for applied sciences received three patents described according to the following table.

#	Certificate No.	Deposit No.	Patent Title
1	29894	EG/P2015/223	Fast purity and in large quantity for the suspension of granite oxide micro flakes and other belongings using a system containing fiber filters
2	30037	EG/P2014/577	A way to convert aluminum and salt water waste into fresh water and electricity
3	30456	EG/P2016/263	Preparation of iron oxide nanoparticles from animal blood waste containing hemoglobin



In 2021, interdisciplinary research received a total fund of 100,00 EGP for young researchers. The following table represents the projects funded.

Project Title	Degree	Amount	Faculty
Remapping Derhib area using a remote sensing approach integrated with petrographical and structural data.	M.Sc.	25000	Faculty of Earth Sciences
Refining of liquid fuel via using designed Metal organic framework composite: experimental and computational studies.	Ph.D.	25000	Faculty Of Post Graduate Studies and Advanced sciences
Remediation of some emerging contaminants using nano-metal organic frameworks.	Ph.D.	25000	Faculty Of Post Graduate Studies and Advanced sciences
"Dyeing of Fabricated Nano Textiles produced By Electrospinning".	Ph.D.	25000	Faculty of Technology and Education

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

[International Publishing Unit \(bsu.edu.eg\)](http://bsu.edu.eg)

[مكتب دعم وتمويل المشروعات \(bsu.edu.eg\)](http://bsu.edu.eg)

[مشروع مركز التميز للمياه بالجامعة الأمريكية بالقاهرة يقدم منحة جديدة لطلاب الهندسة بالجامعات المصرية لدراسة هندسة المياه بجامعة الإسكندرية وعين شمس | The American University in Cairo \(aucegypt.edu\)](http://aucegypt.edu)

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