University of Basrah
College of Education for Pure sciences
Computer Science department

Self-Assessment Report

2024-2025

Preparation committee

Self-Assessment report

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Introduction

Self-assessment is a dynamic and continuous process aimed at collecting and periodically analyzing data, allowing for the identification and enhancement of strengths while uncovering areas for improvement to ensure and develop performance quality. Academic program evaluation measures the extent to which a program achieves its objectives in supporting student learning and skill development. It focuses on program outcomes as a whole rather than on the performance of individual students or specific courses.

Academic evaluation provides precise insights into the extent to which a program fulfills its core objectives by equipping students with the knowledge, skills, and essential values necessary for their professional success, aligning with the university's mission and strategic goals in education and training.

The initial self-assessment of the existing quality level in university activities and higher education programs represents the first step—indeed, the fundamental stage—in the strategic planning process for quality assurance and improvement.

Defining Quality in Higher Education

Quality in higher education systems is defined as the ability to meet fundamental standards that ensure the expectations of students, parents, and society at large are fulfilled. To achieve this goal, continuous education and training for all members of the academic institution become imperative, along with enhancing coordination and activating

communication channels between different departments and administrative units.

Moreover, establishing a precise and effective information system for quality management is essential, as it provides a comprehensive database that is regularly updated to support ongoing development and improvement processes.

To ensure that an educational institution has programs that meet its self-established academic standards, it seeks accreditation from a recognized accreditation body. Obtaining academic accreditation requires institutions to undergo academic evaluation processes, which may take the form of self-assessment or external accreditation.

Role of Self-Assessment in Institutional Development

Self-assessment provides detailed information about the educational institution, its mission, functions, and activities. It also presents a comprehensive analysis of departmental operations, highlighting strengths, weaknesses, opportunities, and challenges (SWOT analysis). Additionally, it captures the collective perceptions of faculty members and students, identifies resource deficiencies, and proposes realistic recommendations for enhancing available resources.

This report was prepared by a specialized committee within the department, based on a set of surveys distributed among faculty members and students to ensure the necessary data was gathered. Furthermore, coordination was established with the college's registration unit and the statistics and accounting division to accurately complete the required

information. Additionally, SWOT analyses underwent review and approval by the department before being incorporated into the report.

ormation. Likewise, SWAT analyzes have been approved by the department.

First Axis

Department's educational strategy

Driven by a dedicated team of faculty, administrators, and technical staff, the Department of Computer Science is committed to achieving the academic, developmental, and research goals outlined in the college's strategic plans, policies, and educational initiatives. We aspire to foster a vibrant community that embraces our scientific mission and progressive role, one that nurtures and empowers the next generation to assume responsibilities, contribute to transformative change, and excel through innovative endeavors.

To foster academic and scientific progress within the department, the college endeavors to encourage and support faculty members in pursuing scholarly endeavors across diverse research areas, incorporating cutting-edge pedagogical techniques, actively engaging in global and local conferences, and organizing seminars and workshops. These initiatives collectively aim to strengthen the faculty's role in the educational process.

The department proudly adheres to a clearly articulated and widely disseminated vision, mission, set of values, and objectives that align with the core functions of the college and university, emphasizing the pursuit of original and rigorous research. These guiding principles are prominently displayed on the college's website, printed materials, and throughout the college and academic departments via wall-mounted posters and electronic displays.

Methodology preparation

The department meticulously crafted its vision, mission, objectives, and goals through a well-defined methodology that encompassed clearly outlined procedures and a logical sequence of steps. This methodology ensured the precise articulation of the department's guiding principles.

All actions related to the formulation of the vision, mission, objectives, and goals were meticulously documented in well-structured records. Moreover, the implementation of these actions achieved a significant degree of success.

Alignment and Harmony

The department's mission comprehensively reflects its vision, clearly delineating the department's fundamental objectives and priorities (education, learning, scientific research, and community service). The department's values seamlessly align with its vision, mission, and objectives.

Dissemination and Communication Strategies

The department engaged in active communication with stakeholders throughout the process of formulating the vision, mission, values, and goals. To ensure clear understanding, the department organized a focused discussion session for a select group of faculty and students, elucidating the essence of the guiding principles. Furthermore, the vision, mission, values, and goals were disseminated through various meetings, including departmental council meetings, college council meetings, and student gatherings. As a result, a significant proportion of stakeholders have gained a thorough understanding of the department's guiding principles.

Review and Evaluation Mechanisms and Tools

The department has implemented a comprehensive set of procedures for reviewing the vision, mission, values, and goals. These procedures involve a dedicated committee and a specifically designed evaluation tool (questionnaire). To date, multiple formal reviews have been conducted. The evaluation questionnaire was distributed to relevant stakeholders, followed by data collection, analysis, and the development of an improvement plan based on the review findings. All review and evaluation procedures are meticulously documented, as detailed in Appendix 1.

Strategic Plan

The strategic plan for the Department of Computer Science (2022-2026) has been meticulously crafted, drawing upon a comprehensive set of foundational frameworks:

- **Vision and Mission of the Department and College:** The strategic plan aligns with the department's and college's overarching vision and mission statements.
- **Analysis of External and Internal Environment:** The plan is informed by a thorough analysis of the department's external and internal environment, taking into account relevant factors and trends.
- **Strategic Plan for the Higher Education Sector:** The plan aligns with the strategic direction and objectives outlined in the strategic plan for the higher education sector.
- **General and Private Accreditation Standards for Higher Education Institutions:** The plan adheres to the established standards for general and private accreditation of higher education institutions.
- **Quality Assurance Standards Issued by the Higher Education Institutions Accreditation Commission: The plan incorporates the quality assurance standards set forth by the Higher Education Institutions Accreditation Commission.**
- **Global University Ranking Standards:** The plan aligns with the recognized standards employed in global university rankings.

The unification, development, and progress of a given society essentially depend on computers. That is why starting a pioneer modern department of a high international rank has become a must in our age of information technology. This is but our vision according to which our own department is doing all it can to improve our students' knowledge required of them in all relevant academic fields with emphasis on the computers thought. It is hoped that our candidates will soon play a leading role in the international academic world.

The mission statement of the computer department is to establish itself as a pioneering entity in the realm of education, academics, and research, with the aim of producing highly qualified educational programmers and teachers who can contribute towards the development of various institutions within the community. The department recognizes that the achievement of this objective hinges upon the availability of a proficient scientific and educational faculty, as well as strong affiliations with reputable organizations.

The department aims primarily to prepare and graduate a teacher with knowledge, critical thinking, and a sound vision for imparting knowledge and morals that qualify its students to achieve the goals of distinguished citizenship and to be a good teacher capable of teaching computer science and the development that follows it and to be qualified to complete his graduate studies through the following goals:

- **To be raised to believe in God and love the country, and to interact with the requirements of good and distinguished citizenship in maintaining a dignified life in which there is mutual respect and accountability.**
- **To believe in the goals of the educational process and aspire to raise the nation's standing in all scientific and educational aspects.**
- **To provide information in the field of computer science to cover what is taught in the intermediate and preparatory stages in Iraq.**
- **To keep pace with the great and rapid development in his field of specialization and work to advance himself to the best level.**
- **To provide information in programming what the administration of the schools in which he works needs, such as distributing teaching sessions,**

recording students' grades, and organizing records using a calculator by designing and creating databases for that.

- To assist the teaching staff in schools and students and encourage them to use modern educational techniques and advanced means of illustration that have direct contact with the computer.
- To be able to create educational programs and bags for school students.
- To be able to establish computer laboratories within good specifications in middle and middle schools.
- To keep pace with the labor market and its requirements.
- Preparing and qualifying specialized and qualified cadres who are scientifically and practically qualified to meet the requirements of the labor market in the public and private sectors in computer science through diversification in learning and teaching methods and training students to apply the acquired knowledge and skills to solve realistic problems.
- Providing distinguished academic programs in the field of computer science, both theoretical and applied, that comply with international standards of academic quality and meet the needs of society.
- Implanting moral values in the student so that he is immune and consistent with the behavior of the Iraqi student.

Data Descriptive For the Department of Computer Science

Institution name: Basra University - College of Education for Pure Sciences

- Type of institution: government

Institution affiliation: Ministry of Higher Education and Scientific Research

- Geographical location:

University of Basrah – North Campus (Karmat Ali)/ Basrah /Iraq

- Department email:

computer.edup@uobasrah.edu.iq

- Studies in the department began in 2002-2003.

Duration of study for preliminary studies to obtain a bachelor's degree: four years

- Postgraduate studies began in the department: 2017-2018

Second Axis

The Input

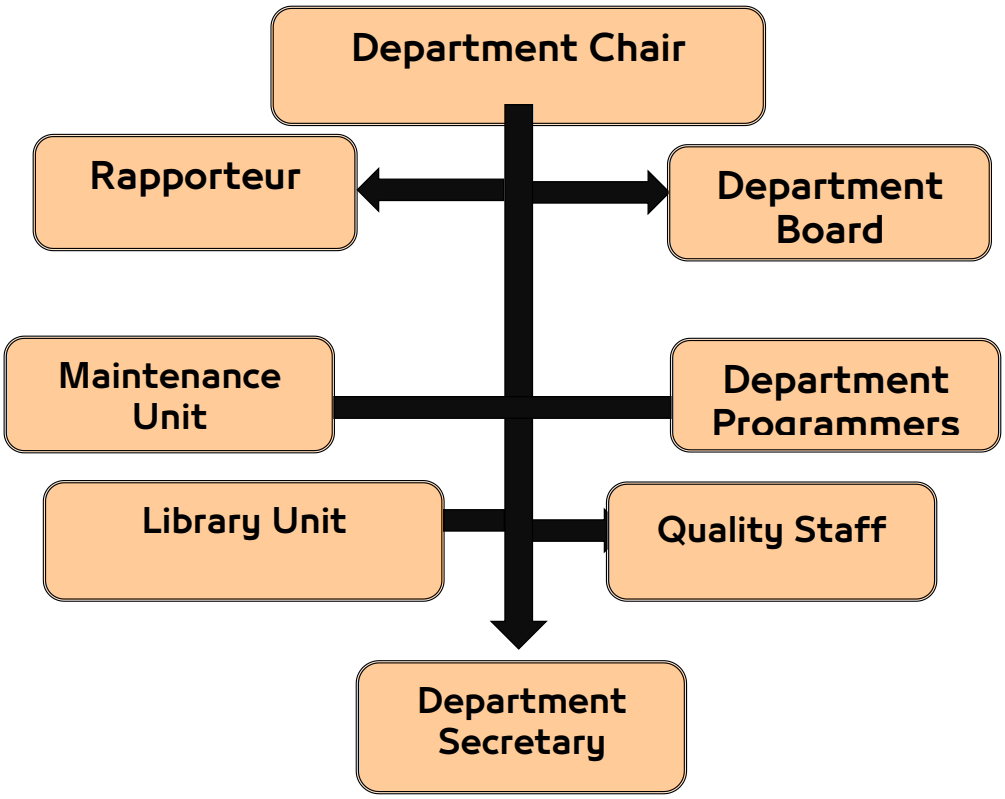
Department Management

- Contact with Department

You can contact the department using the website (http://ceps.uobasrah.edu.iq).

- Department Administrative Structure

The figure below details the administrative structure of the department.



Management is considered the basic standard by which the efficiency and effectiveness of scientific departments are measured. The department is managed by the department chair and its rapporteur, assisted in this by the department council, which is represented by faculty members and department members in order to benefit from their expertise. Several committees have been formed for the purpose of coordinating the work of the administration:

- **The Scientific Committee.**
- **The Examination Committee for Preliminary Studies.**
- **The Examination Committee for Higher Studies.**
- **The Quality Committee.**
- **The Extra Lectures Committee.**
- **The Book Inventory Committee.**
- **The Devices Inventory Committee.**
- **The Observation and Application Committee.**
- **The New Students Welcome Committee.**
- **The Labs Maintenance Committee.**
- **The Procurement Committee.**
- **The Students Registration and Absent Recording Committee**
- **The Educational Guidance Committee.**
- **The Seminars Committee.**
- **The Department Maintenance Committee.**
- **The Students Uniform Committee.**

- **The Archiving Committee.**
- **The Screen Display Committee.**
- **The Events Committee.**
- **The Workshops Committee.**
- **The Department Directory Committee.**
- **The Department's Self-Evaluation Committee.**
- **The Promotion Committee.**
- **The Curriculum Development Committee.**

In addition to the aforementioned, the department's leadership was keen to form a number of support units, which are:

- **Maintenance Unit**

The tasks of this unit are to identify the department's needs for technical requirements, whether with regard to hardware or software components, and work to provide, launch, and maintain them.

- **Internet Supervision Unit**

Its mission is to install and maintain the Internet in all departments of the college and to manage the accounts of subscribers of faculty and staff members.

- **Training and Development Unit**

Its mission is to serve the local community by preparing training programs and specialized courses in all fields of computer science.

- **E-learning Unit**

This unit provides technical support to the college in using the e-learning management system, contributing to spreading the culture of e-learning at the college, and coordinating to hold training courses on e-learning applications at the college.

Department History

The establishment of the department was approved in 2002 AD as part of the College of Education - University of Basrah. Studying in the department started at the beginning of the year 2002-2003 AD by Professor Dr. Hamid Ali Abed Al-Asadi. This distinguished educational edifice has been found in the College of Education by establishing the educational infrastructure and strengthening it with the necessary elements for the essential education inputs that lead to the development of the education process in terms of quality.

Our society is going through the era of information technology and the information revolution, where the importance of information and communication technology has increased during the recent years, and daily life has become dependent on the uses of computers in all fields and various activities as a tool that supports the work system, develops the skills of individuals, and opens wide and new horizons for research, training, individuals, projects, and resources. In view of this rapid technological development in various fields of life, especially in the field of computers and their applications, our department has taken upon itself the dissemination of knowledge in this field, enriching people's lives with it, motivating them to think scientifically, and realizing the impact of information and communication technology on societal development to create an environment conducive to learning, understanding, and keeping pace with scientific development. In addition, our department is trying to contribute to a better education and a more comprehensive culture in the age of information technology.

Department SWOT Analysis

1. Strengths

- **Compact Size Facilitating Easy Communication:** The department's relatively small size fosters seamless communication between students and faculty, encouraging open dialogue and a supportive learning environment.
- **Flourishing E-Learning Initiatives: The department's embrace of e-learning technologies enhances accessibility and flexibility for students, expanding educational opportunities and catering to diverse learning styles.**
- **Experienced and Diverse Faculty: The department boasts a carefully selected faculty with a wealth of expertise and diverse competencies, ensuring high-quality instruction and mentorship for students.**
- **Broad Spectrum of Specialized Fields: The department offers a diverse range of specialized academic fields, providing students with a comprehensive understanding of the multifaceted nature of computer science.**

2. Weakness

- **Limited Faculty Research Motivation: The lack of adequate financial support and incentives hinders faculty engagement in research activities, potentially impacting the department's reputation and knowledge generation capacity.**
- **Deteriorating Physical Infrastructure: The department's physical infrastructure, including classrooms, laboratories, and library facilities, negatively affecting the learning environment and overall functionality.**
- **Inadequate Staffing Levels: The department may experience a shortage of administrative and technical staff, potentially leading to overburdened workloads, inefficient operations, and reduced service quality.**
- **Limited Space for Academic and Support Facilities: The department may lack sufficient space to accommodate faculty offices, laboratories, the library, and essential support facilities, hindering collaboration, research activities, and student access to resources.**
- **Insufficient Number of Advanced Faculty Members: The department may have an inadequate number of faculty members holding the ranks of Professor and Associate Professor, potentially limiting its ability to offer doctoral programs and attract high-caliber students.**
- **Equipment Shortages for Teaching, Research, and Laboratories: The department may face a shortage of essential equipment for teaching, research, and laboratory activities, compromising the quality of instruction, research output, and student learning outcomes.**
- **Overburdened Faculty with Multiple Responsibilities: Faculty members may be overburdened with teaching, research, and administrative duties,**

potentially leading to fatigue, decreased productivity, and a decline in research quality.

3. Opportunities

- The increasing level of demand for the department's graduates by government agencies and private sector companies.
- The construction of a new building for the department to accommodate large classrooms, labs, and library.
- The return of a number of teaching staff who have been delegated to obtain scientific degrees in different new disciplines which could help advance the department.
- The opening of graduate studies helps to publish more scientific papers.

4. Threats

○Lack of hiring new teaching staff to fill the shortage of departing lecturers.

○ Lack of support to increase staff.

○Lack of support to complete the construction of the new department building whose completion was halted due to austerity to get enough space in the near future.

○The increase in student enrollment without increasing the required resources.

○Insufficient funds to purchase equipment, perform repairs, and provide services.

Teaching Staff

The total number of faculty members in the department for the academic year 2023-2024 is (23), distributed according to their academic degrees as:

- **(12) PHD degree holders.**
- **(18) Master degree holders.**

Table-1 shows the distribution of faculty members by scientific title:

Table-1: Scientific Title

PHD				Master				
Professor	Assist. Prof	Lecturer	Total	Professor	Assist. Prof	Lecturer	Assist. Lect.	Total
3	9	0	12	1	1	9	7	18

The following table shows the faculty members in the department according to their degrees and specializations.

No.	Academic Rank	Name	General Specialization	Specific Specialization	Degree Awarding Institution	Additional Notes
1	Professor	Dr. Hamid Ali Abdulmashari Al-Asadi	Computer and Communication Engineering	Networks	UPM University, Malaysia	Department Head
2	Professor	Dr. Ali Adel Yassin Ahmed	Computer Science	Systems and Informatics	Huazhong University, China	
3	Professor	Dr. Zainab Ali Khalaf Maidi	Computer Science	Multimedia / Artificial Intelligence		Seconded to College of Science
4	Professor	Iman Qais Abduljalil	Computer Science	Speech Recognition / Artificial Intelligence		PhD Student at Babylon University
5	Associate Professor	Dr. Khawla Hussein Ali Aboud	Computer Science	Computer Applications Technologies	Huazhong University, China	
6	Associate Professor	Dr. Zaid Ameen Abduljabbar Abdullah	Computer Science	Applied Computing Technology	Huazhong University, China	

7	Associate Professor	Dr. Mohammed Abdulreda Hussein Sabr	Computer Engineering	Applied Computing Technologies	Huazhong University, China	Department Rapporteur
8	Associate Professor	Dr. Husam Akef Abdulmalik Ameen	Computer Science	Network Security	University of Basrah, Iraq	
9	Associate Professor	Dr. Zainab Hamza Abbas Ayesh	History	Islamic History	Basrah, Iraq	
10	Associate Professor	Dr. Zakaria Ahmed Araibi Aboud	Computer Science	Artificial Intelligence / Image Processing	University of Missouri - Columbia, USA	
11	Associate Professor	Dr. Mustafa Salah Khalifa Khadada	Computer Science	Information Systems	UPM University, Malaysia	
12	Associate Professor	Dr. Zainab Jameel Abduljalil Shanan	Guidance	Psychological Counseling and Educational Guidance	Basrah - Humanities Education	
13	Lecturer	Dr. Uday Jasim Mohammed	Computer Science	Information Technology	Belarus	
14	Associate Professor	Abdullah Jasim Yassin Mohammed	Computer Science	Information and Communication Technology	NEU, Cyprus	

15	Lecturer	Rana Jasim Mohammed Ahmed	Computer Science	Image Processing	University of Basrah, Iraq	
16	Lecturer	Wijdan Yassin Abdulkarim Salem	Computer Science	Visual Computing	University of Basrah, Iraq	On Study Leave
17	Lecturer	Mushtaq Abdulmutalib Hassoun Mohammed	Computer Science	Data Mining	Huazhong University, China	
18	Lecturer	Aqeel Nouri Mohammed Ali	Computer Science	Artificial Intelligence / Neural Networks		On Study Leave
19	Lecturer	Intisar Burgess Talal Brisam	Computer Science	Computer Vision	University of Basrah, Iraq	
20	Lecturer	Dhafer Ghani Honi Jayid	Computer Science	Computer Vision	University of Dhi Qar, Iraq	On Study Leave
21	Lecturer	Iman Thabet Khalid	Computer Science	Computer Vision	UPM, Malaysia	
22	Lecturer	Hind Muslim Jasim Mohammed Al-Qatrani	Computer Science	Computer Security	Malaysia	
23	Lecturer	Ali Abdulrazzaq Abdul Ali	Computer Science	Information Technology	UUM, Malaysia	Lecturer

24	Assistant Lecturer	Ammar Asaad Mohammed Anaas	Computer Science	Information Technology	University of Basrah, Iraq	On Study Leave
25	Assistant Lecturer	Nagham Abdulrasool	Computer Science	Information Security	University of Basrah, Iraq	Five-Year Leave
26	Assistant Lecturer	Saja Najeh Abdulhameed	Computer Science	Artificial Intelligence	Sussex, UK	
27	Assistant Lecturer	Nada Ali Nouri	Computer Science	Artificial Intelligence	University of Basrah, Iraq	
28	Assistant Lecturer	Ghazwan Abdulnabi	Computer Science	Artificial Intelligence	USM, Malaysia	
29	Assistant Lecturer	Mohammed Salah Hashim	Computer Science	Artificial Intelligence	University of Basrah, Iraq	
30	Assistant Lecturer	Dalia Adel Younis	Computer Science	Artificial Intelligence	Islamic University, Lebanon	

The following table details the allocation of committees on the faculty members

Committee	Hamid Ali Abd Al-Asadi	Ali Adil Yssin	Khawla Hussien Ali	Husam Akif Abd-Almalik	Zaid Amin Abdul Labbar	Mohammed Abdu-Ridha Hussein	Mostafa Salah Khalifa	Zainab Hamza Abbas	Zakariya Ahmed Oraibi	Nada Ali Noori	Rana Jassim Mohammed	Wijdan Yassin	Mushtaq Abd Al-mutalib	Abdullah Jassim Yassin	Entesar Buriis Talal	Dhafer Ghani Honi	Saja Najih Abd Alhameed	Eman Thabit Khalid	Zainab Jameel Abd Aljaleel	Hind Muslim Jassim	Muhammed Salah Hashim	Ghazwan Abd Al-Nabi	Sundus Atta Jassim	Ammar Asaad
Scientific Committee	*	*	*	*	*	*	*																	
Examination Committee for Undergraduate Studies	*					*			*	*		*								*				*
Examination Committee for Postgraduate Studies	*	*			*	*																		
Quality Committee				*			*											*				*		
Competitive Exam Committee						*					*			*								*		*
Postgraduate projects sorting committee	*	*			*	*																		
Clearing (Previous Studies Check) Committee		*	*									*												
Books Inventory Committee				*									*										*	
Furnitures and Devices Inventory Committee			*					*		*											*	*	*	
Observation and Application Committee	*						*	*					*						*	*				*
New Students Welcome Committee			*								*				*				*		*			
Labs Maintenance Committee										*		*	*	*	*						*	*		
Procurement Committee.																								
Absent Recording Committee						*			*			*								*				
Students Registration Committee						*			*			*								*				

Educational Guidance Committee	*	*						*			*		*					*	*	*				
Seminars Committee		*						*		*	*													*
Dept. Maintenance Committee																								
Students Uniform Committee																								
Archiving Committee			*					*		*					*			*	*				*	
Screen Display Committee																								
Events Committee																								
Workshops Committee																								
Department Directory Committee	*				*		*														*			*
The Department's Self-Evaluation Committee					*				*			*			*				*					
Promotion Committee																								
Dept. Statistics Committee									*		*			*				*		*				
Undergraduates Projects Discussion Committee	*	*	*	*	*	*	*		*		*	*	*	*				*						
Extra Ours Computation Committee				*		*							*					*		*				
Total	**8**	**7**	**6**	**5**	**6**	**9**	**5**	**5**	**6**	**5**	**6**	**7**	**6**	**4**	**4**	**0**	**0**	**6**	**5**	**7**	**4**	**4**	**3**	**5**

In addition, there are extra lecturers from outside the department to teach preliminary and higher studies as in the following table:

Undergraduate Studies		
	Lecturer Name	Course Name
1	Assist. Lect. Ashwaq Jabbar Hmood	Educational Psychology Science
2	Assist. Lect. Zainab Ali Abood	Teaching Curricula and Methods
3	Assist. Lecturer Noor Qatie	Foundations of Education
4	Dr. Zainab Hamza Abbas	Human Rights
5	Assist. Lect. Zahraa Adnan	Mathematics
6	Assist. Lect. Maha Saddam	Measurement and Evaluation
7	Dr. Salman Faiyadh	Supervision and Administration
8	Assist. Lect. Noor Abbas	Counseling and Mental Health
9	Assist. Lect. Raghad Ahmed	Arabic Language
10	Assist. Lecturer Noor Qatie	Alba'ath Party Crimes
11	Assist. Lect. Taqia Ahmed	Numerical Analysis
12	Assist. Lect. Duaa Abd-Almuhsin	Database
13	Dr. Khalid Abdul ellah	English Language
Postgraduate Studies		
1	Dr. Alaa Hussein Sharhan	English language
2	Dr. Jassim Mohammed Al Essawi	Advanced statistics
3	Dr. Abd Al-Wahid Mohammed Mahmood	Teaching Curricula and Methods

Developing Faculty Members Capabilities

The department seeks to develop the capabilities of teaching staff by sending them to participate in local scientific courses and workshops and encouraging them to attend scientific conferences because of their important role in identifying the latest academic developments and developing research capabilities. The department was also keen to provide an internet line for faculty members.

Questions and Answers

- **How can teachers keep up with the latest ideas in their field of specialization and teaching methods? Does this depend on individual motivation or is there a strategic plan for the department?**
- **Answer: The teacher follows up the modern curricula through the websites of the reputable universities and reads the sources of modern books. In addition, they can download the latest research from scientific journals and conferences. Each teacher depends on his individual effort and there is no clear plan for this by the department.**
- **What training activities are provided to new teachers?**
- **Answer: The suitability of the new teaching staff is tested by the scientific committee in the department.**
- **Are the infrastructure facilities, such as computers, office services, etc., sufficient to support teaching, research, and learning activities?**

- **Answer: Library services are insufficient and the department does not have any contact with reputable scientific libraries internationally.**

- **What is the role of faculty members in curriculum design?**

- **Answer: The teaching staff receives the curriculum components from the sectorial committee in the ministry, and his role is limited to updating and changing only 20% of the curriculum.**

- **Do teachers use modern education tools? Are they keen to update the curricula?**

- **Answer: Yes, the teachers are working on using modern presentation methods in giving lectures. This year, they also used e-learning tools efficiently to compensate for classroom lectures as a result of the spread of the COVID-19 epidemic, which prevented the presence of students and teaching staff in classrooms.**

The ratio of the number of students to professors with different academic degrees and certificates

The number of students enrolled in the department's preliminary study program is 203 students, distributed according to the four stages for the academic year 2022-2023, as follows:

Stage	No. of Students
First	56
Second	56
Third	46
Fourth	45
Total	203

In regard to the ration of students to the faculty members, it equals:

No. of Teaching Staff / No. of Students = 203/ 30 = 6.766

SWOT Analysis for the Faculty Members

Strength

- **The teachers have the experience and diversity needed to teach various subjects.**
- **Teachers' ability to publish scientific papers in international journals with an impact factor.**
- **Participation in many scientific conferences and courses.**
- **Giving seminars in the department.**
- **The department frequently holds many scientific seminars in the department's building.**
- **Opening of postgraduate studies - a master's degree in the department.**

Weakness

- **A significant shortage of faculty members.**
- **Overburdening the teachers in teaching a number of subjects and putting them in a number of committees that consume a lot of time.**
- **The reluctance of some teachers from scientific research.**
- **Not sending teachers to training courses outside the country that greatly contributes to the development of their scientific and research capabilities.**

- Lack of financial support for publication in international journals.
- The college and university spend only 30% of the costs of participating in international conferences.

Opportunities

- Opening the door for appointment of a new number of teachers.
- Subscribe in solid scientific journals and libraries.
- Sending teachers abroad to participate in intensive and modern scientific courses.
- Opening a graduate-doctoral program in the department may increase the number of research papers published globally.
- Increasing financial allocations for the research part.

Threats

- The increase in the number of students at the expense of the lack of teachers may cause great pressure on the teachers in teaching many subjects.
- Lack of research at the expense of lectures and administrative tasks.

Students

The admission

The Department of Computer Science in the College of Education for Pure Sciences is distinguished by the fact that it attracts students with the highest rates among the students admitted to the college, which comprises the following departments: computers, mathematics, physics, chemistry, and biology. The department accepts graduates of the scientific branch who hold a high school certificate. Students are accepted based on the student's rate and desire. A committee is formed to interview the new students in the college, and the department nominates one of the faculty members to interview the students nominated for admission to the department. The department also accepts the top ten students from the Teachers Preparation Institute from the Ministry of Education to obtain a bachelor's degree. The following table shows the number of students admitted to the department and their percentage among applicants to the college and their lowest average in the high school certificate for the past four years.

Year	No. of Admitted Students	Lowest Avg. Accepted	Male Percentage	Female Percentage	Success Rate
2024-2025	**114**	450	**0.23**	**0.77**	**---**
2024-2023	**57**	434	**0.17**	**0.83**	**84.15%**
2022-2023	**43**	460	**0.13**	**0.87**	**81.14%**
2022-2021	**44**	460	**0.22**	**0.78**	**72.72%**
2021-2020	**86**	454	**0.31**	**0.69**	**83.11%**
2020-2019	**42**	455	**0.30**	**0.70**	**100%**
2019-2018	**104**	445	**0.42**	**0.58**	**0.48%**

Students Evaluation

Students are evaluated using the following procedures:

- **Monthly, semester and final exams. Students are subjected to two exams (mid-term and final) and monthly exams determined by the subject teacher. In addition, the teachers conduct daily quizzes to ensure that students follow up on the subjects.**
- **Practical tests in the laboratory, where students are required to conduct practical experiments to refine their expertise in the practical aspect.**
- **Technical reports.**
- **Graduation projects for the fourth stage students.**
- **Watch and Apply. Where the students of the fourth stage conduct the teaching experience in preparatory and secondary schools which belong to the Ministry of Education.**

Monitoring Students

The department has formed a guidance committee for each of the four stages. Each committee consists of a chairperson and a member. The committee works to meet monthly with students and listen to their problems and suggestions. At the end of the session, the session chairperson prepares a report and submits it to the department chair. These sessions are usually transparent and deal with scientific, administrative and students' problems.

In addition, the department divides the department's students into groups and distributes these groups to the department's teachers, where the teacher follows up his group throughout the year.

Advising Students

The department of Computer Science is distinguished by its fraternal and paternal dealings with students. Students are prepared scientifically and morally by diagnosing bad behavior among students and trying to cultivate good morals as they are the basic nucleus of building society. The department works to form punishment committees and a disciplinary committee to hold accountable and deter the student who is negligent towards his colleagues or teachers.

Education and Results

The level of education in the department is monitored through the following procedures:

- **Daily and monthly exams conducted by the department to check the level of students' understanding of the subjects.**
- **The head of the department conducts periodic interviews with a group of students in the department to ensure the progress of the teaching process and to see the students' obstacles in the subjects.**
- **The teachers ask the students to work on scientific projects and reports throughout the school year.**

Number of Students and SWOT Analysis

The following table shows the number of students in the department during the current year and the past four years and the success rate in each year.

Year	Total No. of Students	Success Rate
2024-2025	203	
2023-2024	224	84.15%
2022-2023	221	81.76%
2022-2021	239	80.37%
2021-2020	267	78.10%
2020-2019	218	97.70%
2024-2025	203	

In regard to SWOT analysis for the students, it is as follows:

Strength

- **The department accepts the top ranking students in the college.**
- **The admission rate is based on the student's average. The selection takes place on the basis of related scientific subjects such as computers, mathematics and physics.**

Weakness

- **Insufficient number of faculty members to accommodate the increasing number of students.**
- **Lack of necessary classrooms and laboratories.**

Opportunities

- **The return of faculty members who are studying abroad in various scientific fields related to computer science.**
- **The construction of the new building will be finished soon.**

Threats

- **The acceptance of students with low high school averages and focusing more on the quantity of students at the expense of quality.**
- **The increase in the number of students in the department at the expense of the shortage of graduates**

Questions and Answers

- **What are the methods used in the department to ensure the level of students' education and what are the evidences for that?**
  - **Answer: The results of the daily and monthly exams and scientific reports are adopted to ensure the level of learning among the students, and the teachers assign the students with practical projects to monitor the extent of the development of their practical experiences.**
- **What are the methods used by the department to improve the quality of education? Are faculty members rely on feedback from students and graduates?**
  - **Answer: The teachers conduct a questionnaire at the end of the year to find out the students' opinions and suggestions.**
- **Does the department provide students with samples of graduation requirements?**
  - **Answer: No.**
- **Are there specific rules for accepting students based on the given quantity and quality, and is there a criterion for students geographical and social distribution along with the number of males and females?**
  - **Answer: Yes**
- **Does the department provide academic and financial support for students to overcome their problems?**
  - **Answer: Financial grants were distributed to students by the department in order to contribute to solving part of their financial problems. The academic support depends on the individual effort of the teachers.**
- **What are the procedures if things go wrong in the department?**

- **Answer: A disciplinary committee is formed in the department to find out the who made the mistake and determine the appropriate procedure. This may require summoning the student's guardian and writing an obligation note not to repeat the matter.**
- **Do the evaluation standards in the department achieve the desired results for education? What is the evidence that this is true?**
- **Answer: Yes and the evidence are the students' grades.**
- **Do the statistics include:**
- **Ratio of faculty members and their qualifications to the number of students? Answer: Yes**
- **Qualifications for admission and the ratio of males to females. Answer: Yes**
- **The number of accepted students versus the number of admitted (not yet accepted) students. Answer: Yes**
- **Success rate, transfer rate and dropout rate. Answer: Yes**

Dropping and Transferring

The following table details the number of students who dropped and transferred from and to the department throughout the current year and the last four years:

Year	No. of Students Dropped Studying	No. of Students Transferred to the Dept.	No. of Students Transferred Out of the Dept.
2024-2025	2	5	2
2023-2024	4	4	2
2022-2023	8	16	10
2022-2021	5	0	14
2021-2020	16	0	1
2020-2019	35	0	10

Funding

- **Spending type: Government funding.**
- **Level of spending: Not enough to cover all departments' needs.**
- **Percentage of spending on scientific research: No government funding.**
- **Level of spending to develop faculty member's skills: No government funding.**

Facilities

Students Laboratories

The department includes five scientific laboratories equipped with the necessary machines required to teach students. All labs contain a desk and a computer for the laboratory supervisor. There is a projector in every laboratory. The number of subjects that require a laboratory is 16. The following table shows the number of laboratories, the number of equipment in each laboratory, and the capacity of each laboratory.

Lab	Area	No. of Seats	No. of Computers	Other Devices	Classes Taught in the Lab	No. of Days in Active Use	Rate of Operation out of 16
Lab 1	**25**	**25**	**16**	**---**	**Logic Design, Compilers, Numerical Analysis, Data Security**	**5**	15
Lab 2	**25**	**16**	**15**	**---**	**Microprocessors, Drawing by PC, Operating Systems**	**5**	15
Lab 3	**40**	**60**	**16**	**---**	**Computer Technologies, Data Structures, Visual Programming, Websites Design**	**5**	15
Lab 4	**88**	**46**	**18**	**---**	**Structured Programming, Database, Artificial Intelligence, Computer Networks**	**5**	18
Lab 5	**20**	**14**	**22**	**---**	**Higher studies lab + Scientific Courses**	**4**	20

Faculty Members Rooms

The department has the following rooms:

- **Department chair room.**
- **Secretary room.**
- **Teaching assistant's room.**
- **Maintenance room.**
- **Website design room.**
- **Examination committee room.**
- **Female student's room.**
- **Store room.**
- **Services room.**

In regard to faculty member's rooms, there are none rooms as in the following table:

Room	Area	No. of Faculty Members	No. of Computers
Dept. Chair	30 m^2	1	1
Room 1	16 m^2	2	2
Room 2	16 m^2	2	2
Room 3	16 m^2	3	3
Room 4	16 m^2	2	2
Room 5	16 m^2	3	3
Room 6	16 m^2	3	3
Room 7	16 m^2	3	3
Room 8	30 m^2	5	2

In addition, the department includes five classrooms, two of them are inside the department building and the other two are outside. The following table details these classrooms:

Classroom	Place	No. of Seats	Area
C2	Inside the dept.	40	55 m^2
C4	Inside the dept.	49	60 m^2
C2	Outside the dept.	90	110 m^2
C19	Outside the dept.	65	90 m^2
C-Viva	Inside the dept.	45	60 m^2

SWOT Analysis

Strength

- There are classrooms and laboratories within the department.
- Faculty member's rooms are equipped with AC units and personal computers.
- There is a local network linking the department's facilities.

Weakness

- The lack of a building for the department.
- Few number of faculty members rooms.
- There are no specialized laboratories for postgraduate studies.
- A problem with the department's AC units.
- Frequent power outages, especially during exams.
- Weak internet service inside the department.

Opportunities

- The opening of a new building for the department.
- Providing enough number of technicians and workers.
- Providing new laboratories and computer machines.

Threats

- The Increasing number of students.
- The increasing number of teachers and the lack of rooms.

Third Axis

Processing

Study Programming

The department only offers two academic programs, which are the Bachelor's and Master's programs in Computer Science. The program supervisor is currently Professor Dr. Hamid Ali Abdel-Assadi, Head of the Department. His academic qualification is a doctorate in Computer and Communications Engineering. The Department is poised to Launch Its Doctoral Program Commencing with the Academic Year 2024-2025.

Academic Programs Available in the Department

1. Bachelor's Program in Computer Science

This is the core program of the department, designed to prepare outstanding students in the field of computer science by equipping them with both theoretical knowledge and practical skills. The program follows a comprehensive educational approach, combining theoretical and applied aspects while emphasizing programming skills, data analysis, artificial intelligence, networks, and cybersecurity.

2. Graduate Programs (Master's and PhD)

The department offers two graduate programs:

- **Master's in Computer Science: Focuses on deepening scientific and research expertise in specialized areas such as**

artificial intelligence, machine learning, advanced databases, networks, and data security.

- **PhD in Computer Science: This newly introduced program will commence in the 2024-2025 academic year, aiming to prepare highly skilled researchers capable of contributing to the advancement of scientific and technological knowledge in the field of computer science.**

Supervision of Academic Programs

These academic programs are supervised by Professor Dr. Hamid Ali Abdul-Asadi, Head of the Computer Science Department, who has extensive academic and practical experience in computer and communication engineering. Prof. Hamid holds a PhD in Computer and Communication Engineering and is considered a pioneer in his field, dedicated to developing and ensuring the quality of academic programs in accordance with the highest international standards.

Bachelor's Program in Computer Science – Program Details

1. General Program Structure

To obtain a Bachelor's degree in Computer Science, students must complete four academic years, covering a wide range of theoretical and practical subjects. The total number of required credit hours for program completion is 178 credit hours, distributed as follows:

- **First Year: Foundational courses in mathematics and programming fundamentals.**
- **Second Year: Advanced courses in algorithms, data structures, and databases.**
- **Third Year: Specialized courses in artificial intelligence, networks, and cybersecurity.**
- **Fourth Year: Graduation project and practical training, where students apply their acquired knowledge in real-world projects.**

2. Course Components

The coursework consists of core and elective courses, covering various fields, including:

- **Programming and Software Development**
- **Data Analysis and Machine Learning**
- **Network Engineering and Communications**
- **Cybersecurity and Information Protection**
- **Technology Project Management**

3. Practical Projects and Training

Students are required to complete practical projects throughout their academic years, along with a mandatory training period in educational directorates. This hands-on experience helps enhance their practical skills and better prepares them for future careers in the field.

Graduate Programs (Master's and PhD) – Program Details

1. Master's Program

- **Aims to deepen expertise in specialized areas, such as artificial intelligence, data analysis, cybersecurity, and networks.**
- **Requires completion of a research thesis, demonstrating the student's ability in scientific research and innovation.**

2. PhD Program (Starting from 2024-2025)

- **Represents a major milestone for the department, focusing on training researchers capable of advancing scientific knowledge in computer science.**
- **Requires completion of an innovative doctoral dissertation, addressing complex technological challenges and contributing to the field's global advancements.**

Contents

To obtain a bachelor's degree according to the annual academic program, the student must pass four stages of study. The total number of study units for the academic program is 178.

Stage	units
First	46
Second	52
Third	42
Fourth	38
Total	178

The following tables show the study subjects for the four stages of the bachelor's program.

First class				
	Course Name	Hours		Credit Units
		Theory	practical	
1	Logical design	2	2	6
2	Structured programming	2	2	6
3	Mathematics	3	-	6
4	Computer techniques and organization	2	2	6
5	Discrete structures	3	-	6
6	psychology Educational	2	-	4
7	Foundations of education	2	-	4
8	English Language	2	-	4
9	Human rights	1	-	2
10	Arabic Language	1	-	2
The total				48

Second class				
	Course Name	Hours		Credit Units
		Theory	practical	
1	Data structures	2	2	6
2	Object-Oriented Programming	1	2	4
3	Microprocessors and assembly language	2	2	6
4	Numerical Analysis	2	2	6
5	System Analysis and Database Design	2	2	6
6	Computational theory	3	-	6
7	Methodologies of Scientific Research	2	-	4
8	Growth Psycology	2	-	4
9	Administration and Supervision	2	-	4
10	Arabic Language	1	-	2
11	English Language	1	-	2
12	Baath Party crimes	1	-	2
The total				52

Third class				
	Course Name	Hours		Credit Units
		Theory	practical	
1	Artifitial Intelligence	2	2	6
2	Compiler	2	2	6
3	Computer Graphics and Multimedia	2	2	6
4	Visual Basic Programming	2	2	6
5	Computer Architecture	2	1	5
6	Software Engineering	2	2	6
7	Advising and Psychological Health	2	----	4
8	Curricula and Methods of Teaching	2	---	4
The total				42

Forth class				
	Course Name	Hours		Credit Units
		Theory	practical	
1	Operating Systems	2	2	6
2	Communication & Computer Networks	2	2	6
3	Computer and DataSecurity	2	2	6
4	Web Design	1	2	4
5	Data Mining	2	--	4
6	Research Project	2	--	4
7	Measure and Evaluations	2	--	4
8	Practical Education(Observation&Application)	1	2	4
The total				38

As for the master's degree, the student is required to complete 36 academic units. Study in the Master's program is divided into two academic years: The first year includes two semesters, totaling 24 units. As for the research year, the student submits the master's thesis, which has 12 units.

The teaching staff aspires for the study in the department to proceed on the basis of the curriculum system, which is based on specifying the number of study units that are required to be completed and passed at the level stipulated in these regulations as a condition for graduation, which is divided into university requirements and college requirements.

Determine the academic fields in which these units are distributed according to the provisions of these regulations.

The student, after consulting the academic advisor, may choose the courses he wishes to study in each semester from among the offered courses according to his assessment of his need for them and his readiness for them, in accordance with graduation requirements, and within the limits of the permissible study load.

Evaluation of study programs:

We can define self-evaluation as a set of efforts and steps undertaken by the educational institution in order to identify the reality achieved in the educational and teaching process at the level of the programs it provides and compare that with the ambition sought by the institution. Self-evaluation indicates that the educational institution itself is undertaking and making these efforts out of its desire to learn about the reality of its academic programs. This also indicates that evaluation is not a goal in itself but rather a basic and main means in the development and advancement of the institution's educational and learning programmers.

The importance of self-evaluation lies in the fact that these processes contribute significantly and vitally to alleviating the challenges faced by education in our country in general and higher education in our Iraqi universities in particular. A number of challenges have emerged as a result of the expansion witnessed by the higher education sector, which in turn has led to the creation of the so-called crisis or problem of higher education that we are witnessing in our current era.

Out of the belief of the University of Basrah in the importance of continuous evaluation of the programs and activities that it makes available to its employees and offers to its students at various levels and spectrums, the first comprehensive report was prepared on.

The Concept and Importance of Self-Assessment

1. Comprehensive Definition:

Self-assessment is a set of efforts and systematic steps undertaken by an educational institution to evaluate its academic programs. This is achieved through data collection and analysis to identify strengths, weaknesses, and opportunities for improvement. This process reflects the institution's commitment to enhancing the quality of education and achieving the highest academic standards.

2. Main Objectives of Self-Assessment:

- **Understanding the current reality: By analyzing academic and teaching performance and assessing the extent to which educational objectives are being achieved.**
- **Comparing reality with aspirations: Identifying gaps between actual performance and the institution's strategic goals.**
- **Identifying strengths and weaknesses: Recognizing areas that need improvement and those that can be further enhanced.**
- **Providing a development-oriented database: Using self-assessment results as a foundation for decision-making and academic program enhancement.**

3. Self-Assessment as a Tool for Development:

Self-assessment is not an end in itself but a strategic tool for achieving continuous improvement. Through this process, the educational institution can prioritize areas for development, set clear action plans, and improve the quality of education and teaching, ultimately enhancing academic outcomes.

Steps and Procedures of Self-Assessment

1. Data Collection:

Academic program data is gathered through surveys, interviews, and document reviews. This data includes feedback from students, faculty members, and alumni, along with an analysis of academic performance results and key performance indicators.

2. Data Analysis:

The collected data is analyzed to assess the effectiveness of academic programs and identify any deficiencies or challenges in the educational process.

3. Identifying Strengths and Weaknesses:

Based on the analysis, the institution pinpoints areas of excellence in academic programs (strengths) and highlights areas requiring improvement (weaknesses).

4. Developing Recommendations:

Specific recommendations are formulated to enhance strengths and address weaknesses, with a clear prioritization of action items and the necessary resources for implementation.

5. Preparing the Self-Assessment Report:

All findings and recommendations are documented in a comprehensive report, which reflects the current state of academic programs and serves as a foundation for future development plans.

The Role of Self-Assessment in Quality Assurance and Academic Accreditation

1. The First Step Towards Accreditation:

Self-assessment is a fundamental step in an educational institution's journey towards obtaining academic accreditation. It demonstrates the institution's commitment to quality and excellence and facilitates evaluation by accrediting bodies.

2. Enhancing a Culture of Quality:

Self-assessment fosters a quality-driven culture within the institution, making evaluation and continuous improvement an integral part of the daily responsibilities of faculty members and administrators.

3. Improving Educational Outcomes:

Self-assessment contributes to enhancing educational outputs by ensuring that academic programs align with market needs and keep pace with global developments in the academic field.

Self-Assessment in the Context of Knowledge, Skills, and Values

As illustrated in Figure 1, self-assessment is a key component of the quality assurance system, focusing on three main dimensions:

1. **Knowledge: Evaluating the alignment of curricula with global standards.**
2. **Skills: Assessing the effectiveness of programs in developing students' practical and research skills.**
3. **Values and Ethics: Ensuring that academic programs foster ethical and professional values among students.**

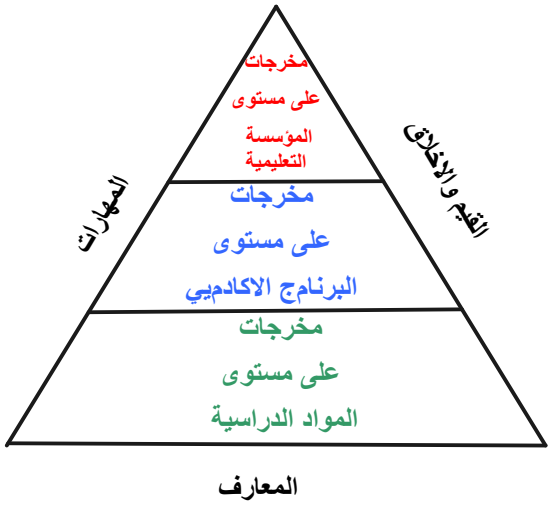


Figure 1: The Learning Triangle

The Importance of Self-Assessment

The significance of self-assessment lies in its vital role in mitigating the challenges faced by the education sector in our country in general, and higher education in Iraqi universities in particular. The rapid expansion of the higher education sector has led to the emergence of several challenges, contributing to what is now referred to as the higher education crisis in the modern era.

Recognizing the importance of continuous evaluation, the University of Basrah is committed to regularly assessing its programs and activities to ensure their effectiveness for its faculty members and students at all levels. In line with this commitment, the university has prepared its first comprehensive report on preliminary self-assessment in accordance with the standards set by the Academic Accreditation and Evaluation Authority. Additionally, efforts are underway to implement developmental evaluations for several academic programs offered by the university.

Questions and answers

- **Why the curriculum was developed this way? Does the curriculum enhance students' progress and development?**
  - **Answer: The curricula were set by the Ministry, leaving the department and university only limited room to change academic subjects and curricula to suit the labor market.**
- **Did the department develop the curriculum? Are there gaps in the curriculum?**
  - **Answer: Some curricula and study materials need to be updated.**
- **Does the department have an established process for evaluating and reviewing curricula?**
  - **Answer: The vocabulary of academic subjects is monitored annually by the scientific committee in the department.**

SWOT analysis of curricula

Strength

- **The 178 credit units required for graduation align closely with the graduation standards of renowned international and domestic computer science programs.**
- **The department's curriculum encompasses a wide range of specialized courses that equip students with the essential knowledge and skills in the field of computer science.**
- **The department's curriculum is regularly updated to reflect the latest advancements and trends in computer science, ensuring that students gain exposure to cutting-edge technologies and methodologies.**

Weakness

- **Shortage in the number of elective subjects.**
- **Increasing the number of humanitarian units.**

Opportunities

- If the number of elective subject's increases and all teachers pay attention to updating their curricula, then the department will witness a noticeable development in updating the curricula.
- The Ministry sets the curricula and only allows the teacher to change 20% of the vocabulary

Threats

- The Ministry of Education retains primary control over curriculum development, granting instructors limited autonomy to modify course content beyond 20%. This restriction can hinder faculty's ability to tailor curricula to align with emerging trends and student needs.

Research Projects

Projects and research

The faculty members in the department who have the rank of teacher or above present graduation projects to the department, and the students are distributed among these projects based on the average. The students are distributed equally among the participating teaching staff. In addition to the tasks of teaching and supervising the students, the teaching staff continues the research mission. The following table shows the number of research papers published by the department staff in previous years:

Publication Date	Publication Venue	Research Title	Researcher Name	No.
2021	China National Intellectural Property	A Lightweight Messaging Method for End to End Smart Device Communication in the Internet of Things Cloud	Prof. Dr. Hamed Ali AL-Asadi	1
2022	CRC Press - Taylor & Francis Group	Enhanced Hybrid and Highly Secure Cryptosystem for Mitigating Security Issues in Cloud Environment	Prof. Dr. Hamed Ali AL-Asadi	2
2021	Wiley Press	An optimal algorithm for better efficiency in WMSN for multimedia application	Prof. Dr. Hamed Ali AL-Asadi	3
2021	INTERNATIONAL JOURNAL OF MICROWAVE	Self-Phase Modulation Mitigation in Coherent Optical Communication System	Prof. Dr. Hamed Ali AL-Asadi	4

	AND OPTICAL TECHNOLOG			
2022	2022 3rd Information Technology To Enhance e-learning and Other Application (IT-ELA)	An Overview of Routing Protocols Performance in Wireless Multimedia Sensor Networks	Prof. Dr. Hamed Ali AL-Asadi	5
2022	Óptica Pura y Aplicada	Predicting BER value in OFDM-FSO systems using Machine Learning techniques.	Prof. Dr. Hamed Ali AL-Asadi	6
2022	The 4th 2022 International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE) Russia, Moscow, March 17-19, 2022	Sidelobe Canceller Performance Evaluation using Sample Matrix Inversion algorithm	Prof. Dr. Hamed Ali AL-Asadi	7
2023	2023 Al-Sadiq International Conference on Communication and Information Technology	Enhancing Wireless Multimedia Sensor Networks with Optimization Algorithms: A Review	Prof. Dr. Hamed Ali AL-Asadi	8
2023	2023 5th International Youth Conference on Radio Electronics, Electrical and Power	Machine Learning approach for predicting suitable wavelengths in OFDM-FSO system	Prof. Dr. Hamed Ali AL-Asadi	9
2023	Iinternational journal fo computing and informatics	Robust Method For Embedding An Image Inside Cover Image Based On Least Significant Bit Steganography	Prof. Dr. Hamed Ali AL-Asadi	10
2023	2023 15th International Conference on Developments in eSystems Engineering (DeSE)	A Tri-Classes Method for Studying the Impact of Nodes and Sinks Number on Received Packets Ratio of MANETs Routing Protocol	Prof. Dr. Hamed Ali AL-Asadi	11

2023	ÓPTICA PURA Y APLICADA	Inverted U-shaped Frequency Reconfigurable Microstrip patch antenna for 5G communication systems	Prof. Dr. Hamed Ali AL-Asadi	12
2020	IEEE Access, Vol.8, 2020, SCI, 3.557	VPPCS: VANET-Based Privacy-Preserving Communication Scheme	Prof. Dr. Ali Adel Yassin	13
2020	Journal of Information and Communication Technology 19 (3), 437-458, 2020.	Smart City Security: Face-Based Image Retrieval Model Using Gray Level Co-Occurrence Matrix	Prof. Dr. Ali Adel Yassin	14
2020	Journal of Emerging Technologies and Innovative Research (JETIR) 7 (2), 2020.	An Effective Scheme To Manage Storage In Smartphone Device By Removing Duplicate Files	Prof. Dr. Ali Adel Yassin	15
2021	Indonesian Journal of Electrical Engineering and Computer Science	A novel image encryption scheme based on DCT transform and DNA sequence	Prof. Dr. Ali Adel Yassin	16
2021	Indonesian Journal of Electrical Engineering and Computer Science	Towards design strong emergency and COVID-19 authentication scheme in VANET	Prof. Dr. Ali Adel Yassin	17
2021	International Conference on Advances in Cyber Security	Multi-factor Authentication for an Administrator's Devices in an IoT Environment	Prof. Dr. Ali Adel Yassin	18
2021	Webology, Volume 18, Special Issue on Current Trends in Management and Information Technology, October, 202	Electronic Health Records System Using Blockchain Technology	Prof. Dr. Ali Adel Yassin	19
2021	Indonesian Journal of Electrical Engineering and Computer Science	Password authentication scheme based on smart card and QR code	Prof. Dr. Ali Adel Yassin	20

2021	Iraqi Journal for Electrical And Electronic Engineering	An Efficient Mechanism to Prevent the Phishing Attacks	Prof. Dr. Ali Adel Yassin	21
2021	Indonesian Journal of Electrical Engineering and Computer Science	Towards design strong emergency and COVID-19 authentication scheme in VANET	Prof. Dr. Ali Adel Yassin	22
2021	Iraqi Journal for Electrical And Electronic Engineering	Towards for Designing Intelligent Health Care System Based on Machine Learning	Prof. Dr. Ali Adel Yassin	23
2022	Indonesian Journal of Electrical Engineering and Computer Science	Sentiment analysis system for COVID-19 vaccinations using data of Twitter	Prof. Dr. Ali Adel Yassin	24
2022	Iraqi Journal for Electrical and Electronic Engineering	Secure Electronic Healthcare Record based on Distributed Global Database and Schnorr Signcryption	Prof. Dr. Ali Adel Yassin	25
2022	Indonesian Journal of Electrical Engineering and Computer Science	Building an efficient content based image retrieval system by changing the database structure	Prof. Dr. Ali Adel Yassin	26
2022	Indonesian Journal of Electrical Engineering and Computer Science	Secure authentication and privacy-preserving to improve video streaming vehicle ad-hoc network	Prof. Dr. Ali Adel Yassin	27
2021	Indonesian Journal of Electrical Engineering and Computer Science	Efficient multi-keyword similarity search over encrypted cloud documents	Prof. Dr. Ali Adel Yassin	28
2021	Iraqi Journal for Electrical and Electronic Engineering	Backward Private Searchable Symmetric Encryption with Improved Locality	Prof. Dr. Ali Adel Yassin	29
2021	Iraqi Journal for Electrical and Electronic Engineering	Secure Multi-keyword Similarity Search Over Encrypted Data With Security Improvement	Prof. Dr. Ali Adel Yassin	30

2021	Journal of Basrah Researches ((Sciences))	SECURE SIMILAR DETECTION FOR DOCUMENTS	Prof. Dr. Ali Adel Yassin	31
2021	MDPI	Employee Attrition Prediction Using Deep Neural Networks	Prof. Dr. Ali Adel Yassin	32
2022	TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES	Privacy Preserving Scheme for Document Similarity Detection	Prof. Dr. Ali Adel Yassin	33
2022	MDPI	Lightweight, Secure, Similar-Document Retrieval over Encrypted Data	Prof. Dr. Ali Adel Yassin	34
2022	IEEE	Privacy Preserving Image Matching Scheme with Aggregated Local Descriptors	Prof. Dr. Ali Adel Yassin	35
2022	IEEE	Provably Secure Session Key Agreement Protocol for Unmanned Aerial Vehicles Packet Exchanges	Prof. Dr. Ali Adel Yassin	36
2022	IEEE	Provably Secure and Fast Color Image Encryption Algorithm Based on S-Boxes and Hyper chaotic Map	Prof. Dr. Ali Adel Yassin	37
2022	IEEE	Lightweight Privacy-Preserving Similar Documents Retrieval over Encrypted Data	Prof. Dr. Ali Adel Yassin	38
2022	2022 Iraqi International Conference on Communication and Information Technologies (IICCIT), IEEE	A Secure and Authentication Scheme to Preserve the Privacy of Electronic Health Records in the Healthcare System	Prof. Dr. Ali Adel Yassin	39
2023	international journal of computing and informations informatica	Locality Improvement Scheme Based on QR Code Technique within Inverted Index	Prof. Dr. Ali Adel Yassin	40

2023	IAENG International Journal of Computer Science	Secure Electronic Healthcare Record Using Robust Authentication Scheme	Prof. Dr. Ali Adel Yassin	41
2023	IAENG International Journal of Computer Science	Breast Cancer Prediction Using Soft Voting Classifier Based on Machine Learning Models	Prof. Dr. Ali Adel Yassin	42
2023	Journal of Ambient Intelligence and Humanized Computing	Omicron virus emotions understanding system based on deep learning architecture	Prof. Dr. Ali Adel Yassin	43
2023	International Journal of Electrical and Computer Engineering (IJECE	A lightweight and secure multilayer authentication scheme for wireless body area networks in healthcare system	Prof. Dr. Ali Adel Yassin	44
2023	Iraqi Journal for Electrical and Electronic Engineering	Authentication Healthcare Scheme in WBAN	Prof. Dr. Ali Adel Yassin	45
2023	Iraqi Journal for Electrical and Electronic Engineering	Using Pearson Correlation and Mutual Information (PC-MI) to Select Features for Accurate Breast Cancer Diagnosis Based on a Soft Voting Classifier	Prof. Dr. Ali Adel Yassin	46
2023	Iraqi Journal for Electrical and Electronic Engineering	Secure Electronic Healthcare Record based on Distributed Global Database and Schnorr Signcryption	Prof. Dr. Ali Adel Yassin	47
2023	International Journal of Computer Information Systems and Industrial Management Application	Virtual SmartCards-based Authentication in Healthcare Systems and Application	Prof. Dr. Ali Adel Yassin	48
2023	Basrah Researches Sciences	Improving the Performance of Searchable Symmetric Encryption by Optimizing Locality	Prof. Dr. Ali Adel Yassin	49
2023	Bulletin of Electrical Engineering and Informatics	Secure two-factor mutual authentication scheme using shared image in medical healthcare environment	Prof. Dr. Ali Adel Yassin	50

2023	International Journal of Intelligent Engineering and Systems	Towards for Designing Educational System Using Role-Based Access Control	Prof. Dr. Ali Adel Yassin	51
2020	CCIOT 2020: Proceedings of the 2020 5th International Conference on Cloud Computing and Internet of Things	Toward Awareness Locality Algorithms of Peer-to-Peer File Sharing Network	Prof. Dr. Zaid Amin Abdul Jabbar	52
2020	IEEE	Lightweight Secure Message Delivery for E2E S2S Communication in the IoT-Cloud System	Prof. Dr. Zaid Amin Abdul Jabbar	53
2020	IEEE	Promising Bio-Authentication Scheme to Protect Documents for E2E S2S in IoT-Cloud	Prof. Dr. Zaid Amin Abdul Jabbar	54
2021	Indonesian Journal of Electrical Engineering and computer science	Securing audio transmission based on encoding and steganography	Prof. Dr. Zaid Amin Abdul Jabbar	55
2021	MDPI	Secure Data of Industrial Internet of Things in a Cement Factory Based on a Blockchain Technology	Prof. Dr. Zaid Amin Abdul Jabbar	56
2021	ACM	Web application database protection from SQLIA using permutation encoding	Prof. Dr. Zaid Amin Abdul Jabbar	57
2021	springer	Towards Iris-Based Authentication for Smart Devices in the Cloud	Prof. Dr. Zaid Amin Abdul Jabbar	58
2021	IEEE	Lightweight Privacy-Preserving Similar Documents Retrieval over Encrypted Data	Prof. Dr. Zaid Amin	59

			Abdul Jabbar	
2021	MDPI	Lightweight, Secure, Similar-Document Retrieval over Encrypted Data	Prof. Dr. Zaid Amin Abdul Jabbar	60
2021	IEEE	Towards Security and Privacy Preservation in 5G Networks	Prof. Dr. Zaid Amin Abdul Jabbar	61
2022	IEEE	Provably Secure Session Key Agreement Protocol for Unmanned Aerial Vehicles Packet Exchanges	Prof. Dr. Zaid Amin Abdul Jabbar	62
2022	Conference: 2021 5th International Conference on Information Systems and Computer Networks (ISCON)	Energy Efficient WSN Sink-Cloud Server Authentication Protocol	Prof. Dr. Zaid Amin Abdul Jabbar	63
2022	International Conference on Ad Hoc Networks International Conference on Testbeds and Research Infrastructures ADHOCNETS 202	Dynamic Ephemeral and Session Key Generation Protocol for Next Generation Smart Grids	Prof. Dr. Zaid Amin Abdul Jabbar	64
2022	Springer- EAI WiCON 2021 - 14th EAI International Wireless Internet Conference	Anonymous Key Agreement and Mutual Authentication Protocol for Smart Grids	Prof. Dr. Zaid Amin Abdul Jabbar	65
2022	Institute of Advanced Engineering and Science	Audio steganography with enhanced LSB method for securing encrypted text with bit cycling	Prof. Dr. Zaid Amin Abdul Jabbar	66

2022	IEEE	Authentication and Key Agreement Protocol for Secure Traffic Signaling in 5G Networks	Prof. Dr. Zaid Amin Abdul Jabbar	67
2022	IEEE International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA)	Efficient Extreme Gradient Boosting Based Algorithm for QoS Optimization in Inter-Radio Access Technology Handoff	Prof. Dr. Zaid Amin Abdul Jabbar	68
2022	Springer-7th EAI International Conference on IoT as Service- IoTaas	Stochastic Security Ephemeral Generation Protocol for 5G Enabled Internet of Thing	Prof. Dr. Zaid Amin Abdul Jabbar	69
2022	4th Global Power, Energy and Communication Conference (IEEE GPECOM2022), June 14-17, 2022, Cappadocia/Turkey	Verifiable Security and Privacy Provisioning Protocol for High Reliability in Smart Healthcare Communication Environment	Prof. Dr. Zaid Amin Abdul Jabbar	70
2022	IEEE- 2022 7th IEEE International Energy Conference (ENERGYCON 2022)	Temporary Symmetric Key Based Message Verification Protocol for Smart Energy Networks	Prof. Dr. Zaid Amin Abdul Jabbar	71
2022	Springer- Packet Replays Prevention Protocol for Secure B5G Networks	Packet Replays Prevention Protocol for Secure B5G Networks	Prof. Dr. Zaid Amin Abdul Jabbar	72
2022	2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON)	Biometric-Based Packet Validation Scheme for Body Area Network Smart Healthcare Devices	Prof. Dr. Zaid Amin Abdul Jabbar	73
2022	FABULOUS 2022: Future Access Enablers for Ubiquitous and Intelligent	MAC-Based Symmetric Key Protocol for Secure Traffic Forwarding in Drones	Prof. Dr. Zaid Amin Abdul Jabbar	74

	Infrastructures , Springer			
2022	Journal of Sensor and Actuator Networks	Session-Dependent Token-Based Payload Enciphering Scheme for Integrity Enhancements in Wireless Networks	Prof. Dr. Zaid Amin Abdul Jabbar	75
2022	Journal of Sensor and Actuator Networks	session-Dependent Token-Based Payload Enciphering Scheme for Integrity Enhancements in Wireless Networks	Prof. Dr. Zaid Amin Abdul Jabbar	76
2022	Applied Cryptography in Computer and Communications Second EAI International Conference, AC3 2022, Springes	Symmetric Key Based Scheme for Verification Token Generation in Internet of Things Communication Environment	Prof. Dr. Zaid Amin Abdul Jabbar	77
2022	Indonesian Journal of Electrical Engineering and Computer Science	Fully automated model on breast cancer	Prof. Dr. Zaid Amin Abdul Jabbar	78
2022	MDPI-Journal of Sensor and Actuator Networks	A Lightweight Hybrid Scheme for Hiding Text Messages in Colour Images Using LSB, Lah Transform and Chaotic Techniques	Prof. Dr. Zaid Amin Abdul Jabbar	79
2022	Elsevier	Provably throttling SQLI using an enciphering query and secure matching	Prof. Dr. Zaid Amin Abdul Jabbar	80
2022	MDPI-Applied Sciences	Energy Efficient Dynamic Symmetric Key Based Protocol for Secure Traffic Exchanges in Smart Home	Prof. Dr. Zaid Amin Abdul Jabbar	81
2022	Human-Centric Smart Computing Proceedings of ICHCSC 2022-Springer	Forward and Backward Key Secrecy Preservation Scheme for Medical Internet of Things	Prof. Dr. Zaid Amin Abdul Jabbar	82

2022	the 2nd EAI International Conference on Computational Intelligence and Communications Springer	Intelligent Target Cell Selection Algorithm for Low Latency 5G Networks	Prof. Dr. Zaid Amin Abdul Jabbar	83
2022	Proceedings of International Conference on Communication and Computational Technologies ICCCT 2022- Springer	Low Bandwidth and Side-Channeling Resilient Algorithm for Pervasive Computing Systems	Prof. Dr. Zaid Amin Abdul Jabbar	84
2022	Conference proceedings 2022 Artificial Intelligence and Sustainable Computing- Springer	Optimized Hysteresis Region Authenticated Handover for 5G HetNets	Prof. Dr. Zaid Amin Abdul Jabbar	85
	IEEE- International Conference on Electrical, Computer and Energy Technologies (ICECET)	Provably Secure Session Key Agreement Protocol for Unmanned Aerial Vehicles Packet Exchanges	Prof. Dr. Zaid Amin Abdul Jabbar	86
2023	Computers, Materials & Continua	A Blockchain-Based Architecture for Securing Industrial IoTs Data in Electric Smart Grid	Prof. Dr. Zaid Amin Abdul Jabbar	87
2023	International Journal of Electrical and Computer Engineering (IJEC	Investigating the relationship between knowledge management practices and organizational learning practices in the universities' environment	Prof. Dr. Zaid Amin Abdul Jabbar	88
2023	Applied Sciences- MDPI	Lightweight Integrity Preserving Scheme for Secure Data Exchange in Cloud-Based IoT System	Prof. Dr. Zaid Amin Abdul Jabbar	89

2023	International Journal of Electrical and Computer Engineering (IJECE)	Provably secure and efficient audio compression based on compressive sensing	Prof. Dr. Zaid Amin Abdul Jabbar	90
2023	International Conference on Internet of Everything-Springer	Transient Session Key Derivation Protocol for Key Escrow Prevention in Public Key Infrastructure	Prof. Dr. Zaid Amin Abdul Jabbar	91
2023	Internet of Things	Multi-chain blockchain based secure data-sharing framework for industrial IoTs smart devices in petroleum industry	Prof. Dr. Zaid Amin Abdul Jabbar	92
2023	Electronics MDPI	A Symmetric Key and Elliptic Curve Cryptography-Based Protocol for Message Encryption in Unmanned Aerial Vehicles	Prof. Dr. Zaid Amin Abdul Jabbar	93
2023	Sustainability MDPI	Elliptic Curve Cryptography-Based Scheme for Secure Signaling and Data Exchanges in Precision Agriculture	Prof. Dr. Zaid Amin Abdul Jabbar	94
2023	Informatica an international journal fo computing and informatics	Secure and Low-Complexity Medical Image Exchange Based on Compressive Sensing and LSB Audio Steganography	Prof. Dr. Zaid Amin Abdul Jabbar	95
2023	International Conference on Optics and Machine Vision (ICOMV 2023)	Concurrent pipeline rendering scheme based on GPU multi-queue and partitioning images	Prof. Dr. Zaid Amin Abdul Jabbar	96
2017	International Journal of Science and Research (IJSR)	A Hybrid Approach for Intrusion Detection System	Dr. Hussam Akef Abdelmalik	97
2021	MDPI	Employee Attrition Prediction Using Deep Neural Networks	Dr. Hussam Akef Abdelmalik	98

2021	IEEE	Privacy Preserving Image Matching Scheme with Aggregated Local Descriptors	Dr. Hussam Akef Abdelmalik	99
2023	Applied Sciences-MDPI	Lightweight Integrity Preserving Scheme for Secure Data Exchange in Cloud-Based IoT System	Dr. Hussam Akef Abdelmalik	100
2023	Bulletin of Electrical Engineering and Informatics	Secure two-factor mutual authentication scheme using shared image in medical healthcare environment	Dr. Hussam Akef Abdelmalik	101
Apr. 2017	The 2017 International Conference on computing intelligence and information system, Nanjing, China, IEEE Press.	The best performance evaluation of encryption algorithms to reduce power consumption in WSN	Asst. Prof. Dr. Mohammed Abdulreda Hussein	102
Nov. 2017	2017 6th International Conference on Communication, Electronics and Automation Engineering (ICCEAE 2017), Chongqing, China, IEEE Press.	EEC–LEACH: Energy-Efficient Clustering Design for Reducing Power Consumption of LEACH Protocol	Asst. Prof. Dr. Mohammed Abdulreda Hussein	103
Jan. 2018	International Journal of Distributed Sensor Network Vol. 14, Issue 2,	Efficient Encryption Image Retrieval in IOT-Cloud with Multi-User Authentication	Asst. Prof. Dr. Mohammed Abdulreda Hussein	104
2020	Basrah Research Journal - Science	Adopting Intranet in E-Learning as an Alternative to the Internet to Improve Service Quality	Asst. Prof. Dr. Mohammed Abdulreda Hussein	105
2020	Basrah Research Journal - Science	Encoding Query Based Lightweight Algorithm for	Asst. Prof. Dr. Mohammed	106

		Preventing SQL Injection Attack	Abdulreda Hussein	
2020	IEEE Access	Lightweight Secure Message Delivery for E2E S2S Communication in the IoT-Cloud System	Asst. Prof. Dr. Mohammed Abdulreda Hussein	107
2020	2020 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC), Macau, China, IEEE	Promising bio-authentication scheme to protect documents for E2E S2S in IoT-cloudy	Asst. Prof. Dr. Mohammed Abdulreda Hussein	108
2021	2021 The 4th International Conference on Information Science and Systems, Edinburgh, United Kingdom, ACM	Web application database protection from SQLIA using permutation encoding	Asst. Prof. Dr. Mohammed Abdulreda Hussein	109
2021	Indonesian Journal of Electrical Engineering and Computer Science, vol. 22, no.	Securing audio transmission based on encoding and steganography	Asst. Prof. Dr. Mohammed Abdulreda Hussein	110
2016	Indonesian Journal of Electrical Engineering and Computer Science	Ensuring Data Integrity Scheme Based on Digital Signature and Iris Features in Cloud	Asst. Prof. Dr. Mohammed Abdulreda Hussein	111
2022	Bulletin of Electrical Engineering and Informatics	Provably curb man-in-the-middle attack- based ARP spoofing in a local network	Asst. Prof. Dr. Mohammed Abdulreda Hussein	112
2021	International Conference on Electrical,	Provably Secure Session Key Agreement Protocol for	Asst. Prof. Dr. Mohammed	113

	Computer and Energy Technologies (ICECET)	Unmanned Aerial Vehicles Packet Exchange	Abdulreda Hussein	
2022	Egyptian Informatics Journal	Provably throttling SQLI using an enciphering query and secure matchins	Asst. Prof. Dr. Mohammed Abdulreda Hussein	114
2023	Sustainability MDPI	Elliptic Curve Cryptography-Based Scheme for Secure Signaling and Data Exchanges in Precision Agriculture	Asst. Prof. Dr. Mohammed Abdulreda Hussein	115
2023	Applied Sciences-MDPI	Lightweight Integrity Preserving Scheme for Secure Data Exchange in Cloud-Based IoT System	Asst. Prof. Dr. Mohammed Abdulreda Hussein	116
2021	Indonesian Journal of Electrical Engineering and Computer Science	Towards design strong emergency and COVID-19 authentication scheme in VANET	Lecturer Mushtaq Abdulmutalib	117
2021	Indonesian Journal of Electrical Engineering and Computer Science	Password authentication scheme based on smart card and QR code	Lecturer Mushtaq Abdulmutalib	118
2019	INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH	Deep Machine Learning In Neural Networks	Lecturer Mushtaq Abdulmutalib	119
2022	Indonesian Journal of Electrical Engineering and Computer Science	Secure authentication and privacy-preserving to improve video streaming vehicle ad-hoc network	Lecturer Mushtaq Abdulmutalib	120

2017	J. Multi-Disciplinary Eng. Sci. Stud.	Security issues in wireless sensor networks	Lecturer Intisar Burgess Talal	121
2016	International Journal of Computer Science and Information Security (IJCSIS)	Texture Features Analysis using Gray level Co-occurrence Matrix for a Spine MRI Images	Lecturer Intisar Burgess Talal	122
2014	Basrah Journal of Agricultural Sciences	Gait Recognition System Using Support Vector Machine and Neural Network.	Lecturer Intisar Burgess Talal	123
2016	l Fourth International Conference on Advances in Information Processing and Communication Technology - IPCT 2016	Haralick Texture Features Based on Bag of Visual Words for a Spine MRI Images	Lecturer Intisar Burgess Talal	124
2016	Karbala University جامعة كربلاء	Gender Classification Using Scaled Conjugate Gradient Back Propagation	Lecturer Intisar Burgess Talal	125
2016	The Fourth Scientific Conference of the College of Science	Gender Classification Using Scaled Conjugate Gradient Back Propagation	Lecturer Intisar Burgess Talal	126
2016	Fourth International Conference on Advances in Computing, Communication and Information Technology CCIT-2016	Texture Features Based Bag of Visual Words for a Spine MRI Images	Lecturer Intisar Burgess Talal	127

2017	J. Multi-Disciplinary Eng. Sci. Stud.	Security issues in wireless sensor networks	Lecturer Intisar Burgess Talal	128
2021	Samarra Journal of Pure and Applied Science	Applying the method synchronization from PC on the electronic circuit chaotic from type attraction – repulsion	Lecturer Intisar Burgess Talal	129
2022	Indonesian Journal of Electrical Engineering and Computer Science	Sentiment analysis system for COVID-19 vaccinations using data of Twitter	Lecturer Intisar Burgess Talal	130
2022	Al-Qadisiyah journal of pure science	Automatic Diabetic Retinopathy Recognition Method based on GLDM Features and Feed Forward Neural Network Classify	Lecturer Intisar Burgess Talal	131
2022	multimedia tools and application	GLDM and Tamura features based KNN and particle swarm optimization for automatic diabetic retinopathy recognition system	Lecturer Intisar Burgess Talal	132
2023	2023 IEEE 47th Annual Computers, Software, and Applications Conference (COMPSAC)	Gait Recognition using Deep Residual Networks and Conditional Generative Adversarial Networks	Lecturer Intisar Burgess Talal	133
2022	Indonesian Journal of Electrical Engineering and Computer Science	Sentiment analysis system for COVID-19 vaccinations using data of Twitter	Lecturer Iman Thabet Khalid	134
2022	Al-Qadisiyah journal of pure science	Automatic Diabetic Retinopathy Recognition Method based on GLDM Features and Feed Forward Neural Network Classifie	Lecturer Iman Thabet Khalid	135

2022	multimedia tools and application	GLDM and Tamura features based KNN and particle swarm optimization for automatic diabetic retinopathy recognition system	Lecturer Iman Thabet Khalid	136
2023	Journal of Ambient Intelligence and Humanized Computing	, Omicron virus emotions understanding system based on deep learning architecture	Lecturer Iman Thabet Khalid	137
2020	Journal of Information and Communication Technolog	SMART CITY SECURITY: FACE-BASED IMAGE RETRIEVAL MODEL USING GRAY LEVEL CO-OCCURRENCE MATRIX	Asst. Prof. Abdullah Jasim Yassin	138
2021	Communications in Computer and Information Science -Springer	Multi-factor Authentication for an Administrator's Devices in an IoT Environment	Asst. Prof. Abdullah Jasim Yassin	139
2021	Indonesian Journal of Electrical Engineering and Computer Science	A novel image encryption scheme based on DCT transform and DNA sequence	Asst. Prof. Abdullah Jasim Yassin	140
2022	Indonesian Journal of Electrical Engineering and Computer Science	Design a sturdy and secure authentication scheme capable of early detection of COVID-19 patients using WBAN	Asst. Prof. Abdullah Jasim Yassin	141
2022	Journal of Sensor and Actuator Network	Session-Dependent Token-Based Payload Enciphering Scheme for Integrity Enhancements in Wireless Network	Asst. Prof. Abdullah Jasim Yassin	142
2021	Indonesian Journal of Electrical	Password authentication scheme based on smart card and QR code	Asst. Prof. Abdullah	143

	Engineering and Computer Scienc		Jasim Yassin	
2022	Applied Sciences	Energy Efficient Dynamic Symmetric Key Based Protocol for Secure Traffic Exchanges in Smart Home	Asst. Prof. Abdullah Jasim Yassin	144
2022	Indonesian Journal of Electrical Engineering and Computer Science	Building an efficient content based image retrieval system by changing the database structure	Asst. Prof. Abdullah Jasim Yassin	145
2022	Applied Sciences MDPI	Energy Efficient Dynamic Symmetric Key Based Protocol for Secure Traffic Exchanges in Smart Homes	Asst. Prof. Abdullah Jasim Yassin	146
2023	IAENG International Journal of Computer Science	Secure Electronic Healthcare Record Using Robust Authentication Scheme	Asst. Prof. Abdullah Jasim Yassin	147
				148
2021	Indonesian Journal of electrical engineering and computer science	Efficient multi-keyword similarity search over encrypted cloud document	Lecturer Dhafer Ghani Honi	149
2021	MDPI	Employee Attrition Prediction Using Deep Neural Network	Lecturer Dhafer Ghani Honi	150
2021	Turkish Journal of Electrical Engineering & Computer Science	Privacy Preserving Scheme for Document Similarity Detection	Lecturer Dhafer Ghani Honi	151
2022	IEEE	Privacy Preserving Image Matching Scheme with Aggregated Local Descriptor	Lecturer Dhafer Ghani Honi	152

2022	IEEE Access	Provably Secure and Fast Color Image Encryption Algorithm Based on S-Boxes and Hyperchaotic Mapping	Lecturer Dhafer Ghani Honi	153
2023	IEEE	Towards Fast Edge Detection Approach for Industrial Products	Lecturer Dhafer Ghani Honi	154
2023	Iraqi Journal for Electrical and Electronic Engineering	An Efficient Path Planning in Uncertainty Environments using Dynamic Grid-Based and Potential Field Methods	Lecturer Dhafer Ghani Honi	155
2023	Electronics MDPI	A Symmetric Key and Elliptic Curve Cryptography-Based Protocol for Message Encryption in Unmanned Aerial Vehicles	Lecturer Dhafer Ghani Honi	156
2023	Electronics MDPI	A Symmetric Key and Elliptic Curve Cryptography-Based Protocol for Message Encryption in Unmanned Aerial Vehicles	Lecturer Hind Muslim Jasim	157
2023	Sustainability MDPI	Elliptic Curve Cryptography-Based Scheme for Secure Signaling and Data Exchanges in Precision Agriculture	Lecturer Hind Muslim Jasim	158
2021	IEEE	Prediction of COVID-19 from Chest X-ray Images Using Multiresolution Texture Classification with Robust Local Feature	Asst. Prof. Dr. Zakaria Ahmed Araibi	159
2023	2023 IEEE 47th Annual Computers, Software, and Applications	Gait Recognition using Deep Residual Networks and Conditional Generative Adversarial Networks	Asst. Prof. Dr. Zakaria Ahmed Araibi	160

	Conference (COMPSAC)			
2021	Iraqi Journal for Electrical and Electronic Engineering	Towards for Designing Intelligent Health Care System Based on Machine Learning	م.م.ندى علي نوري	161
2021	Journal of Basrah Researches ((Sciences))	A Comparative Analysis for Diabetic Prediction Based on Machine Learning Technique	م.م.ندى علي نوري	162
2020	Basrah Research Journal - Science	A new approach for finding duplicated words in scanned Arabic documents based on OCR and SURF	Asst. Prof. Dr. Khawla Hussein Ali	163
2021	Iraqi Journal for Electrical and Electronic Engineering IJEEE	Brain MRI Segmentation based on U Net Architecture	Asst. Prof. Dr. Khawla Hussein Ali	164
2022	Diyala Journal of Engineering Sciences	Segmentation of Human Brin Gliomas Tumor images using U net Architecture with transfer learning	Asst. Prof. Dr. Khawla Hussein Ali	165
2022	International journal Mechanical Engineering	An improvement of the MRI segmentatin algorithm on the Human Brain	Asst. Prof. Dr. Khawla Hussein Ali	166
2022	Iraqi journal for electrical and electronic Engineering IJEE	Segmentation of Aerial images using U- Net	Asst. Prof. Dr. Khawla Hussein Ali	167
2022	IEEE	Enhanced Semantic segmenttion of Aerial images with Spatial Smoothnes using CRF mode	Asst. Prof. Dr. Khawla Hussein Ali	168
2022	J. Basrah Res.(Sci.	Generating High-Resolution Chest X-ray Images Using CGAN	Asst. Prof. Dr. Khawla Hussein Ali	169

2023	Iraqi Journal of Science	Automatic Diagnosis of Coronavirus Using Conditional Generative Adversarial Network (CGAN)	Asst. Prof. Dr. Khawla Hussein Ali	170
2023	International Journal of Intelligent Systems and Applications in Engineering	Vision Transformer Neural Nets Application for Object Recognition over Water in Um Qaser Port	Asst. Prof. Dr. Khawla Hussein Ali	171
2023	Journal of Ambient Intelligence and Humanized Computing	Omicron virus emotions understanding system based on deep learning architecture	م. وجدان ياسين	172
2023	processes MDPI	Predicting reaction based on customer's transaction using machine learning approaches	Ghazwan Abdulnabi Aboud Abdulnabi Al-Ali	173
2023	processes MDPI	An Intelligent Early Flood Forecasting and Prediction Leveraging Machine and Deep Learning Algorithms with Advanced Alert System	Ghazwan Abdulnabi Aboud Abdulnabi Al-Ali	174
2024	Engineering Technology & Applied Science Research	A Robust Hybrid Machine and Deep Learning based Model for Classification and Identification of Chest X-ray Images	Asst. Lecturer Rana Jasim Mohammed	175
2024	Journal of Image and Graphics	Gait Recognition Using Hybrid LSTM-CNN Deep Neural Networks	Asst. Prof. Dr. Zakaria Ahmed Araibi	176
2024	PLoS ONE	Hiding scrambled text messages in speech signals	Asst Prof. Dr. Zaid	177

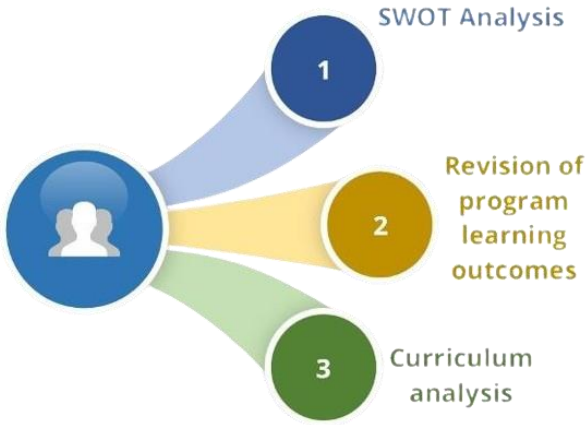
		using a lightweight hyperchaotic map and conditional LSB mechanism	Amin Abdul Jabbar	
2024	PLoS ONE	Hiding scrambled text messages in speech signals using a lightweight hyperchaotic map and conditional LSB mechanism	Prof. Iman Qais .Abduljaleel	178
2024	PLoS ONE	Low complexity smart grid security protocol based on elliptic curve cryptography, biometrics and hamming distance	Prof. Iman Qais .Abduljaleel	179
2024	Journal of Sensor and Actuator Networks	An Optimized Link State Routing Protocol with a Blockchain Framework for Efficient Video-Packet Transmission and Security over Mobile Ad-Hoc Networks	Prof.. Dr. Hamid Ali Abed ALasadi	180
2024	Multimedia Tools and Applications	Fuzzy C-mean clustering technique based visual features fusion for automatic video summarization method	م. إيمان ثابت خالد	181
2024	2024 International Conference on Artificial Intelligence in Information and Communication (ICAIIC)	Provably Efficient and Fast Technique for Determining the Size of a Brain Tumor in T1 MRI Images	Lecturer Hind Muslim Jasim	182
2024	PLoS ONE	A provably lightweight and secure DSSE scheme, with a constant storage cost for a smart device client	Asst. Lecturer Rana Jasim Mohammed	183
2024	PLoS ONE	A provably lightweight and secure DSSE scheme, with a constant storage cost for a smart device client	Iman Qais Abduljaleel	184

2024	Iraqi Journal of Science	Volve Oil Field S-Wave Log Data Prediction Using GBR and MLPR	Prof. Dr. Zainab Ali Khalaf	185
2024	Informatica (Slovenia)	Efficient COVID-19 Prediction by Merging Various Deep Learning Architectures	Asst. Prof. Dr. Zakaria Ahmed Araibi	186
2024	Cryptography	A Provably Secure Anonymous Authentication Protocol for Consumer and Service Provider Information Transmissions in Smart Grids	Iman .I Qais Abduljaleel	187
2024	TEM Journal	Deep Sentiment Analysis System with Attention Mechanism for the COVID-19 Vaccine	Prof. Iman Qais .Abduljaleel	188
2024	Basrah Researches Sciences	A survey study in Object Detection: A Comprehensive Analysis of Traditional and State-of-the-Art Approaches	Prof. Dr. Zainab Ali Khalaf	189
2024	Scientific reports	Smart city energy efficient data privacy preservation protocol based on biometrics and fuzzy commitment scheme	Asst Prof. Dr. Zaid Amin Abdul Jabbar	190
2024	scientific reports	Smart city energy efficient data privacy preservation protocol based on biometrics and fuzzy commitment scheme	Asst Prof. Abdullah Jasim Yaseen	191
2024	International Conference on Electrical, Computer and Energy Technologies (ICECET 2024)	Stain the Phony Brains: Generating Synthetic Different Medical Images Modalities Using Latent Diffusion Model	Asst Prof. Dr. Khawla Hussein Ali	192

2024	Computers, Materials and Continua	Message Verification Protocol Based on Bilinear Pairings and Elliptic Curves for Enhanced Security in Vehicular Ad Hoc Networks	Lecturer Hind Muslim Jasim	193
2024	Journal of Engineering and Applied Science	Control system design for azimuth position of earth station antennas	Prof. Dr. Zainab Ali Khalaf	194
2024	Tikrit Journal of Engineering Sciences	Airplane Detection Using Deep Learning Based on VGG and SVM	Prof. Dr. Zainab Ali Khalaf	195
2024	7th IEEE International Conference on Advanced Technologies, Signal and Image Processing (ATSIP'2024)	Gop Size Effect on VVC Encoder Performance with MRF Variation	Asst. Lecturer Rana Jasim Mohammed	196
2024	ICTACT Journal on Communication Technology	FOG ENABLED PRIVATE BLOCKCHAIN-BASED IDENTITY AUTHENTICATION SCHEME FOR OIL AND GAS FIELD MONITORING	Asst Prof. Abdullah Jasim Yaseen	197
2024	Iraqi Journal for Electrical and Electronic Engineering	Handwritten Signature Verification Method Using Convolutional Neural Network	Wijdan Yaseen Abdul Karim	198
2024	Scientific Reports	A secure and efficient blockchain enabled federated Q-learning model for vehicular Ad-hoc networks	Hend Muslim	199

Questions and answers

- **What is the department's strategy for promoting scientific research?**
  - **Answer: There is a strategic plan for the department that is hampered by financial issues and the large number of administrative concerns of teaching staff and the committees assigned to them at the department, college, and university levels.**
- **To what degree does the department promote scientific research?**
  - **Answer: The department is keen to encourage researchers in the department to participate widely in scientific conferences inside and outside the country and to publish research in journals with high impact factors.**
- **What are the challenges facing scientific research in the department?**
  - **The answer is: One of the most prominent challenges is the large number of administrative and administrative concerns among teachers.**



SWOT Analysis for Scientific Research

□ Strengths

- Despite a limited number of faculty members, the department has managed to publish a significant number of high-impact research papers in international journals. **This demonstrates the department's commitment to producing high-quality research despite resource constraints.**
- A competitive spirit among the faculty members fosters a culture of active participation in scientific conferences and collaboration on research projects. **This collaborative environment promotes knowledge sharing and innovation.**
- The establishment of graduate studies within the department provides opportunities for faculty members to mentor and guide aspiring researchers, further enriching the research environment. **This expansion of the department's academic scope creates a pipeline of talented researchers.**

□ Weaknesses

- **Limited financial support for participation in international scientific conferences hinders faculty members' ability to present their research findings and network with peers on a global scale.** This lack of funding can restrict the department's visibility and impact within the international research community.
- **Faculty members' time is often consumed by teaching and administrative tasks, leaving less time for dedicated research activities.** This heavy workload

can limit the department's research output and hinder the pursuit of innovative research projects.

- **The university's lack of subscription to reputable scientific libraries restricts faculty members' access to the latest research literature and hinders their ability to stay abreast of emerging trends and methodologies in their respective fields.** This lack of access can impede the quality and relevance of the department's research.

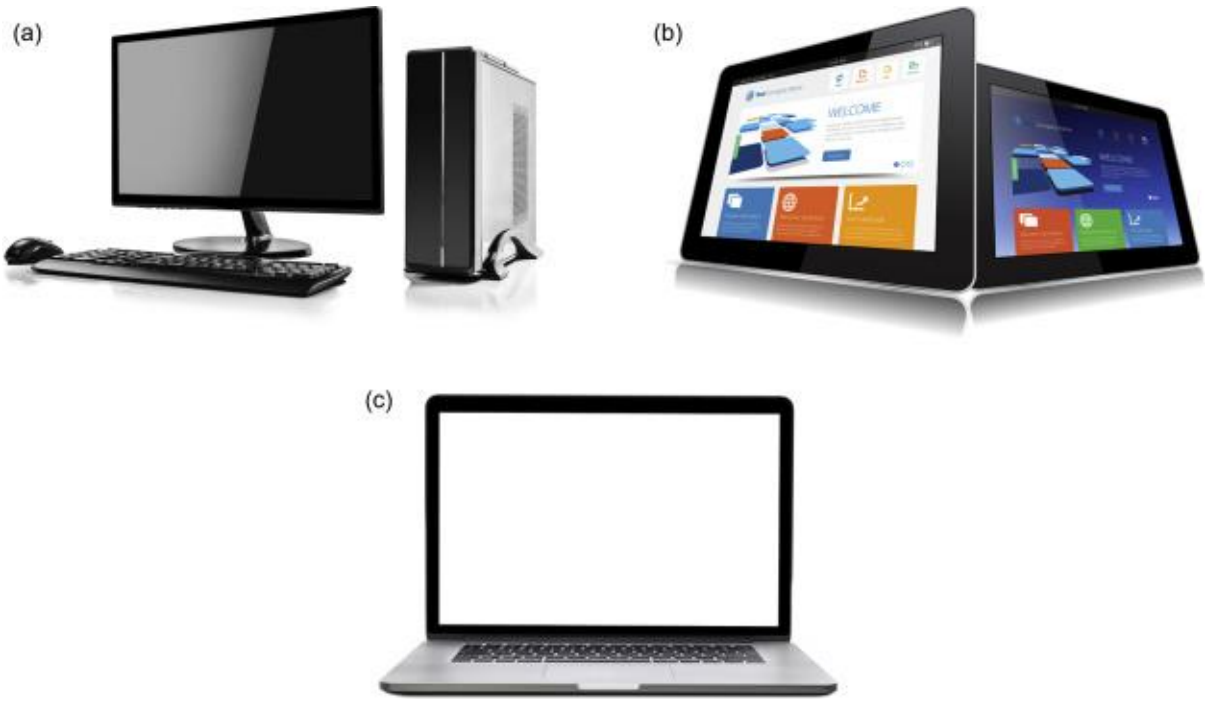
Opportunities

- **Subscribing to high-quality scientific journals would provide faculty members with access to the latest research findings and facilitate the dissemination of their own research.** This access would enhance the department's research profile and attract talented researchers.
- **Providing opportunities for faculty members to participate in international training courses would expose them to cutting-edge research methodologies and enhance their expertise.** This professional development would increase the likelihood of publishing in top-tier international journals and elevate the department's reputation.

Threats

- **The increasing burden of administrative tasks on faculty members further limits their time for research activities.** This administrative overload can hinder the department's ability to produce high-quality research and attract talented researchers.

- **Inadequate financial support for scientific research can lead to a decline in research output and hinder the department's ability to attract and retain talented researchers.** This lack of funding can jeopardize the department's long-term sustainability and competitiveness.



Community Services

The department actively contributes to the community through its educational offerings throughout the academic year. The department has organized numerous specialized training courses, as detailed in the following table:

Table: Internal and External Training Courses and Workshops

	Name of the lecturer	Training Course or Workshop Title	Venue
1	Prof. Dr. Hamed Ali Abd Al Assadi	Challenges in Information Technology Governance and Management	Department of Computer Science
2	Prof. Dr. Hamed Ali Abd Al Assadi	The University's Electronic Book and Digital Publishing: A Comparative Analysis Pre- and Post-Covid-19 Pandemic	Department of Computer Science
3	Prof. Dr. Ali Adel	Enhancing User Account Security in Social Media Applications: A Multifaceted Approach	Department of Computer Science
4	Prof. Dr. Ali Adel	Hackers and social media applications	Department of Computer Science
5	Dr. Khawla Hussein	Why HTTP dropped TCP and adopted UDP	Department of Computer Science

6	Dr. Khawla Hussein	Can AI draw Emotions?	Department of Computer Science
7	Dr. Khawla Hussein	what is GRU (Gated Recurrent Unit)	Department of Computer Science
8	A. Prof. Dr.. Zaid Amin Abdul Jabbar	Mobile cloud computing challenges	Department of Computer Science
9	A. Prof. Dr.. Zaid Amin Abdul Jabbar	Assessing Journal Credibility and Navigating the Scientific Publication Landscape	Department of Computer Science
10	A.Prof. Dr. Muhammad Abdel Reda Hussein	Personalizing E-mail Content for Targeted Engagement and Effective Communication	Department of Computer Science
11	A.Prof. Dr. Muhammad Abdel Reda Hussein	Optimizing Examination Processes: A Review of Graduate Studies Examination Committee Programs	Department of Computer Science
12	A.Prof.D .Hossam Akef Abdel Malik Amin	Ethical Hacking: Unveiling the Principles and Practices of Information Security	Department of Computer Science
13	A.Prof.D .Hossam Akef Abdel Malik Amin	Delving into the Deep Web: Exploring the Uncharted Territories of the Internet	Department of Computer Science
14	Dr. Mustafa Salah Khalifa	Time Management Strategies for Postgraduate Students: Enhancing Productivity and Academic Success	Department of Computer Science
15	Dr. Mustafa Salah Khalifa	Research Methodology: A Comprehensive Guide to Scientific Inquiry and Knowledge Generation	Department of Computer Science

16	Dr. Zakaria Ahmed Oribi	Introduction to Keras and Tensorflow for Deep Learning	Department of Computer Science
17	Dr. Zakaria Ahmed Oribi	Image Classification using Stacked Autoencoders	Department of Computer Science
18	A.Prof.Dr. Zainab Hamza Abbas	Challenges Faced by University Students in Applying Theoretical Knowledge to Practical Applications	Department of Computer Science
19	A.Prof.Dr. Zainab Hamza Abbas	Persistent Challenges Encountered by Elementary School Teachers in the Realm of E-learning	Department of Computer Science
20	A.Prof.Dr. Zainab Hamza Abbas	Historical Perspective on Epidemics and Diseases: Understanding Pathogens and Treatment Strategies	Department of Computer Science
21	A.Prof.Dr. Zainab Hamza Abbas	The Impact of Educational Guidance on the Personality Development of University Students	Department of Computer Science
22	Dr.Zainab Jamil Abdel Jalil	The Impact of Examination Anxiety on Academic Achievement Among University Students	Department of Computer Science

23	Dr. Zainab Jamil Abdel Jalil	Time Management Techniques and Their Role in Undergraduate Success	Department of Computer Science
24	Wejdan Yassin Abdel Karim	Psychological Stress and Its Implications for the Personality Development of University Students	Department of Computer Science
25	Wejdan Yassin Abdel Karim	Academic and Educational Counseling for First-Year Students	Department of Computer Science
26	Rana Jassim Mohammed	The Significance of Decision-Making and Its Far-Reaching Effects on University Students	Department of Computer Science
27	Rana Jassim Mohammed	A Comprehensive Review of Blockchain Technology: Applications, Challenges, and Future Directions	Department of Computer Science
28	Mushtaq Abdul Muttalib	blockchain review	Department of Computer Science
29	Mushtaq Abdul Muttalib	BiBTeX: A Powerful Tool for Research Index Management	Department of Computer Science
30	Intisar Barjas Talal	Mastering the Art of Public Speaking and Effective Presentation for Fourth-Year Students	Department of Computer Science
31	Intisar Barjas Talal	Contemporary Trends in Network Security and Data	Department of Computer Science

		Protection: Embracing Cybersecurity	
32	Hind Muslim	10. Establishing a Digital Presence in the Metaverse: Opportunities and Challenges	Department of Computer Science
33	Ammar Asaad Muhammad	brain cancer detection by deep learning	Department of Computer Science
34	Ammar Asaad Muhammad	Copy-Move Image Forgery Detection	Department of Computer Science
35	Nada Ali Nouri	FACULTY-ATTENDANCE-MANAGEMENT-SYSTEM-USING-FACE-RECOGNITION	Department of Computer Science
36	Nada Ali Nouri	Automatic-Number-Plate-Recognition-System	Department of Computer Science

The scientific activities of the department within the university and the proposed college can be listed as follows:

	Activity Title	Beneficiary
1	Seminar titled: Obstacles to Teaching Computer Science in Secondary Schools	Basra Governorate Education Directorate
2	E-Government	Basra Governorate Council
3	Visual Basic Course	Instructors of Basra Governorate Education Directorate
4	Computer Maintenance Course	Instructors of Basra Governorate Education Directorate
5	E-Learning Course	Instructors of Basra Governorate Education Directorate

Planned scientific seminars to be held and participated in both inside and outside Iraq

Seminar Title	Presenter	Venue
Standardized Criteria and Quality Control for Programmed Information Technology Applications for Serving the Holy Quran	Prof. Dr. Hamed Ali Abd Al Assadi	Department of Computer Science
Complex Drawing in LaTeX	Prof. Dr. Hamed Ali Abd Al Assadi	Department of Computer Science
The Role of IT in Healthcare	Prof. Dr. Ali Adel	Department of Computer Science
E-Learning and Its Challenges	Dr. Khawla Hussein	Department of Computer Science
Ready-made E-Learning Platforms and Their Extent of Meeting the Requirements of University Education in Iraq	A.Prof.D .Hossam Akef Abdel Malik Amin	Department of Computer Science
Future Labor Market Needs for Graduates of Computer Science Departments	Asst. Prof. Dr. Zaid Amin Abdul Jabbar	Department of Computer Science
The Mechanism of Writing Scientific Research and Choosing Reputable Scientific Journals	A.Prof. Dr. Muhammad Abdel Reda Hussein	Department of Computer Science
Endnote Learning	A.Prof. Dr. Muhammad Abdel Reda Hussein	Department of Computer Science
VVC Standards	Rana Jassim Mohammed	Department of Computer Science
Human Rights (A Comparative Study Between the Imam Al-Zain Al-Abidin's Epistle of Rights and the Universal Declaration of Human Rights)	Asst. Prof. Dr. Zainab Hamza Abbas	Department of Computer Science
Women's Rights Between Reality and Aspiration	Dr. Zakaria Ahmed Arabi	Department of Computer Science
Introduction to Keras and Tensorflow for Deep Learning	Dr. Mustafa Salah Khalifa	Department of Computer Science
Research Analysis	Dr. Mustafa Salah Khalifa	Department of Computer Science

Publication Quality	**Dr. Zainab Jameel Abdul Jalil**	**Department of Computer Science**
The Spread of the Cheating Phenomenon Among Students and the Search for Its Causes and Solutions	**Dr. Zainab Jameel Abdul Jalil**	**Department of Computer Science**
Psychological Problems Among Students and Their Relationship to Domestic Violence: The Search for Causes and Solutions	**Ammar Asad Mohammed**	**Department of Computer Science**
Cyberspace Security	**Ammar Asad Mohammed**	**Department of Computer Science**
Modern Trends in Network Security and Data Protection (Cybersecurity)	**Hind Muslim Jassim**	**Department of Computer Science**
Creating a Digital Presence in the Metaverse	**Nada Ali Nouri**	**Department of Computer Science**
FACULTY-ATTENDANCE-MANAGEMENT SYSTEM- USING-FACE-RECOGNITION	**Nada Ali Nouri**	**Department of Computer Science**
Automatic-Number-Plate-Recognition-System	**Nada Ali Nouri**	**Department of Computer Science**
Adopting Information and Communication Technology to Improve Learning and Teaching	**Prof. Dr. Hamed Ali Abdul Al-Asadi, and Abdullah Jassim Darwish**	**Department of Computer Science**
Guidance and Its Future Directions in Building the New Human	**Prof. Dr. Hamed Ali Abdul Al-Asadi, and Abdullah Jassim Darwish**	**Department of Computer Science**

Planned Scientific Conferences to be Held and Participated in Both Inside and Outside Iraq

Date	Venue	Conference Title	Presenter
2025	University of Basrah - Iraq University College	IEEE International Conference on Communication and Information Technology, (ICICT'25)	Prof. Dr. Hamid Ali Abed Al-Asadi

Forth Axis

Outputs

Graduates

The following table shows the percentage of graduate students for the past four years relative to the total number of department students:

	-2017 2018	-2018 2019	-2019 2020	-2020 2021	2023-2022
The number of graduate students	49	61	64	52	63
Number of fourth stage students	59	73	70	61	72
Graduation rate	%83.051	%83.562	%94.117	%85.24	%87.5

Scientific Production

With the significant expansion of academic and research activities, the Department of Computer Science is committed to strengthening its role as a center of excellence in education, scientific research, and community service. Through a variety of initiatives and activities, the department contributes to developing the academic environment and providing the necessary resources to achieve excellence in education and research. Below is a detailed description of the key activities and initiatives:

• Active Participation in Local Scientific Conferences: The department's faculty members are keen on actively participating in local scientific conferences. These participations offer opportunities to present scientific research, exchange experiences with other researchers, and stay updated with the latest developments in the field of computer science. These participations enhance the department's reputation at the local level and contribute to building collaborative networks with other research institutions.

• Organizing Scientific Seminars Within the Department: The department organizes regular scientific seminars in which distinguished professors and researchers from within the country are invited. The objectives of these seminars are:

- **Discussing modern scientific and technological issues.**
- **Exchanging experiences between faculty members and students.**

- **Promoting a culture of scientific research and innovation within the department.**

• Organizing Weekly Study Circles: The department organizes weekly study circles during which research topics are discussed among the department's staff. These circles serve as a platform to exchange ideas, address research challenges, and enhance collaboration among researchers across multiple fields. They also contribute to developing research skills among faculty members and students.

• Installation and Management of the College's Internet Network and Other Departments: The department staff plays a key role in the installation and management of the college's internet network and other departments. This includes:

- **Designing and implementing the internet infrastructure.**
- **Ensuring the stability and security of the network.**
- **Providing technical support to users.**

This service is essential to ensure the smooth operation of the educational and research process and to provide a developed technological environment for students and faculty members.

• Development of the Department's Scientific Library: The department is working on developing its scientific library by adding a large number of modern scientific books and academic references in the field of computer science. Development efforts include:

- **Regularly updating scientific content.**
- **Providing diverse knowledge sources, including both print and electronic books.**
- **Facilitating access for students and researchers to the necessary scientific resources for their studies and research.**

• Design and Management of the College's Website: The department staff is responsible for designing and managing the college's website, which serves as the main platform for introducing the college, its academic programs, and activities. This includes:

- **Regularly updating content.**
- **Providing comprehensive information about academic programs and faculty members.**
- **Facilitating communication between the college, students, and the external community.**

• Preparation and Management of the E-Learning System: The department is responsible for preparing and managing the college's e-learning system, which includes:

- **Designing and implementing an integrated learning platform.**
- **Training faculty members and students to use the system.**
- **Providing technical and technical support to ensure the effective operation of the e-learning process.**

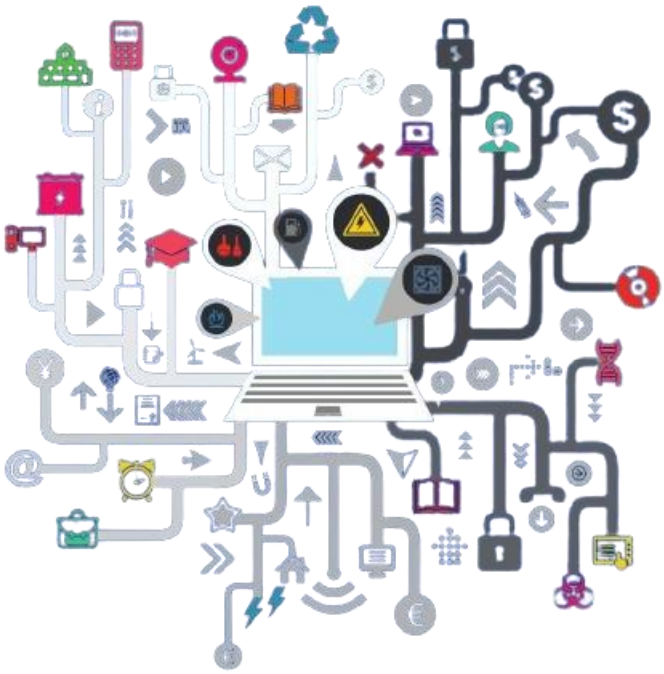
The department also works on educating members about the importance of activating e-learning and how to benefit from it to improve the quality of education.

• Impact of These Initiatives on the Department and College:

- **Enhancing the Academic Environment: By providing resources and modern technologies, these initiatives contribute to improving the quality of education and scientific research.**
- **Building Collaborative Networks: Participation in conferences and scientific seminars enhances collaboration with other research institutions.**
- **Improving Technical Services: The management of the internet network and e-learning system contributes to providing a developed technological environment that supports the educational process.**
- **Developing Research Skills: Through study circles and seminars, research skills are enhanced among faculty members and students.**

Active participation in attending local scientific conferences

- **Organizing scientific seminars within the department and hosting qualified professors from within the country.**
- **Organizing weekly seminars by discussing a research topic among members of the department staff.**
- **Installing and managing the Internet network for the college and the rest of the departments.**
- **Developing the department's scientific library by supplying it with a large number of modern scientific books.**
- **Design and management of the college's website.**
- **Preparing and managing the college's e-learning system and educating members about the importance of activating e-learning.**



Seminars

		Title of the seminar	First semester	Type
1	Prof. Dr. Hamed Ali Abd Al Assadi	Architectural analysis of multi-Agents educational model in web-learning environments	Second Semester	attendance
2	Prof. Dr. Hamed Ali Abd Al Assadi	Message Security on Mobile Phones: Building a Protective Algorithm		attendance
3	Prof. Dr. Hamed Ali Abd Al Assadi	Deep Learning Strategies: Fostering Programming Skills in Computer Science Students		attendance
4	Prof. Dr. Ali Adel	The role of blockchain and AI in computer system	First semester	
5	A. Prof. Dr. Khawla Hussein	zero shot named entity recognution using openAI chstGPT AI	Second Semester	attendance
6	A. Prof. Dr. Khawla Hussein	how to manage risks of AI?	First semester	attendance
7	A. Prof. Dr. Khawla Hussein	zero shot named entity recognution using openAI chstGPT AI	First semester	attendance
8	A. Prof. Dr.. Zaid Amin Abdul Jabbar	Mobile Cloud Computing (MCC)	Second Semester	attendance
9	A. Prof. Dr.. Zaid Amin Abdul Jabbar	Solid scientific understandings	First semester	attendance

10	A. Prof. Dr Muhammad Abdel Reda	Electronic government in Iraq	Second Semester	attendance
11	A. Prof. Dr Muhammad Abdel Reda	SQLI attack	Second Semester	attendance
12	A. Prof. Dr Muhammad Abdel Reda	Cyber security	First semester	attendance
13	A. Prof. Dr Hossam Akef Abdel Malik	Ethical Hacking Meaning and Techniques	Second Semester	attendance
14	Dr. Mustafa Salah Khalifa	How to chose a paper	First semester	attendance
15	Dr. Mustafa Salah Khalifa	Systematic literature review	First semester	attendance
16	Dr. Zakaria Ahmed Oribi	Introduction to Keras and Tensorflow for Deep Learning	Second Semester	attendance
17	Dr. Zakaria Ahmed Oribi	Image Classification using Stacked Autoencoders	Second Semester	attendance
18	Rana Jassim Mohammed	Project management	First semester	attendance
19	Mushtaq Abdul Muttalib	blockchain review	First semester	attendance
20	Intisar Barjas Talal	Modren Methods applying in Machine Learning		attendance
21	Hind Muslim	Using Website that applicatable tecqnique of AI	First semester	
22	Hind Muslim	Gait Recognition using Deep Residual Networks	First semester	attendance

23	Nada Ali Nouri	Artificial intelligence-based medical image segmentation	Second Semester	attendance
24	Nada Ali Nouri	Malware Analysis and Detection Using Machine Learning Algorithms	First semester	attendance

Services

With the significant expansion of academic and service activities, the Department of Computer Science is keen to enhance its role as a fundamental contributor to developing qualified academic and intellectual staff, in addition to providing specialized technical services that contribute to improving the educational and administrative processes within the college and university. Through a variety of initiatives and activities, the department contributes to achieving academic and research excellence and provides innovative technical solutions that meet the needs of educational institutions and the community. Below is a detailed description of the key activities and initiatives:

• Graduating New Cohorts of Qualified Teachers: The department annually graduates new cohorts of teachers who are academically and intellectually qualified. They are prepared through comprehensive academic programs that include both theoretical and practical aspects. Graduates are distinguished by their deep knowledge in the field of computer science, along with educational skills that qualify them to teach in schools and institutes. This effort is part of the department's contribution to the development of the educational system by preparing distinguished educational staff.

• Computer Maintenance Services: The department provides computer maintenance services within and outside the college through its maintenance unit. These services include:

- **Maintenance of peripheral devices and servers.**
- **Solving technical problems related to software and hardware.**
- **Providing technical support to users.**

This service is of great importance in ensuring the continuity of the educational and administrative processes without interruption.

• Designing the Department's Electronic Archiving System: The department has designed the electronic archiving system, which is an effective tool for managing documents and records in an organized and secure manner. The system includes:

- **Digital storage of administrative and academic documents.**
- **Facilitating the search and retrieval of information.**
- **Enhancing security and privacy through advanced protection systems.**

This system contributes to improving the efficiency of administrative work within the department.

• Designing the Department's Database System: The department has designed a database system used to manage academic and research information efficiently. The system includes:

- **Storing student and faculty member data.**
- **Managing study plans and academic results.**
- **Providing statistical reports to aid decision-making. This system**

is a key tool for improving data management and supporting the educational process.

• Participation in Designing the Basra University Website: The department's staff contributed to designing the Basra University website, which serves as a main interface for introducing the university, its academic programs, and activities. The department's contributions include:

- **Designing a user-friendly and attractive interface.**
- **Developing a content management system for regular updates.**
- **Ensuring the website's security and accessibility speed.**

This effort is part of the department's contribution to enhancing the university's digital infrastructure.

• Designing the New Student Admission and Distribution System: The department designed a system for admitting and distributing new students across the college's departments, which is an effective tool for

managing the admission process in an organized and fair manner. The system includes:

- **Registering the data of prospective students.**
- **Distributing students to departments based on specific criteria (such as GPA and preferences).**
- **Issuing detailed reports to help monitor the admission process.**

This system contributes to improving the efficiency of the administrative process and ensuring fairness in student distribution.

• Impact of These Initiatives on the Department and College:

- **Enhancing the Technical Infrastructure: By designing advanced electronic systems, the department contributes to improving the efficiency of educational and administrative processes.**
- **Improving Student Services: The admission and student distribution systems contribute to providing a smooth experience for new students.**
- **Supporting Scientific Research: The database and electronic archiving systems are essential tools for supporting scientific research and managing information.**
- **Serving the Community: By providing maintenance and technical support services, the department contributes to serving the local community and educational institutions.**

Recommendations

Higher education quality is considered the cornerstone of human resource development, as it ensures the achievement of academic standards that keep pace with scientific and technological advancements and meet the changing needs of the labor market. Achieving an integrated educational system requires continuous commitment to the principles of total quality management throughout all stages of the educational process, starting from basic education, through university education, and continuing with lifelong learning after graduation.

Academic assessment comes as a central element in developing quality assurance systems within higher education institutions. It is not limited to measuring performance but goes beyond that to be a real tool for analysis, development, and strategic planning. Through the experience of the Department of Computer Science in developing curricula for the university stage and applying self-assessment mechanisms for academic programs, the need for a set of recommendations that contribute to enhancing the quality of education and achieving sustainable development goals becomes clear.

First: Curriculum Development and Alignment with Labor Market Requirements

- **Designing a dynamic mechanism to monitor and analyze the requirements of the labor market at both local and global levels, ensuring that curricula are updated regularly to align with the needs of various sectors.**

- **Involving employers and economic sectors in the curriculum development process, enhancing the integration between academic programs and labor market requirements, which contributes to preparing graduates to enter professional life with high efficiency.**
- **Strengthening the practical and training aspects in academic programs by incorporating applied research projects and expanding the scope of field training for students, thus enhancing their practical and professional skills.**
- **Integrating entrepreneurship and innovation concepts into the curriculum, helping to develop students' creative thinking and motivating them to develop technological and entrepreneurial solutions that meet the needs of society and the labor market.**

Second: Strengthening Academic Collaboration Between Universities Locally and Internationally

- **Establishing academic partnerships between Iraqi universities to exchange curricula and successful experiences and work on developing them according to the latest international standards.**
- **Strengthening collaboration with prestigious international universities through scientific and academic agreements that allow the exchange of expertise and faculty members and the development of academic programs according to international standards.**
- **Launching academic twinning programs with leading universities, providing students and faculty members opportunities to benefit from international experiences in research and teaching.**

- **Expanding student exchange programs that offer students the opportunity to learn in diverse academic environments, thus enhancing their abilities and developing their cultural and professional skills.**

Third: Supporting Scientific Research and Innovation

- **Providing financial support for scientific research by allocating budgets for applied research, covering publication expenses in peer-reviewed scientific journals, and supporting researchers' participation in international and local scientific conferences.**
- **Launching funding programs for innovative research projects targeting societal challenges and offering practical technological solutions.**
- **Strengthening partnerships between academic institutions and industrial and commercial sectors, contributing to turning academic research into applied projects that contribute to economic development.**
- **Establishing specialized research centers within universities that work on developing advanced technological solutions in fields such as artificial intelligence, data analytics, information security, and other modern specialties.**

Fourth: Developing Evaluation and Quality Mechanisms

- **Creating a comprehensive academic evaluation system based on precise standards that measure the quality of curricula, faculty performance, and students' academic achievement, ensuring academic excellence.**
- **Forming specialized national evaluation committees to conduct regular and independent assessments of academic departments according to**

international standards, considering the uniqueness of each specialty and its goals.

- **Holding periodic meetings for the heads of permanent committees for curricula and study schedules in Iraqi universities to discuss the latest developments in curriculum development and benefit from leading experiences.**
- **Strengthening self-evaluation systems within academic departments to ensure continuous improvement in the quality of academic programs through regular surveys and data analysis to develop curricula that meet the needs of students and the labor market.**

Fifth: Spreading the Culture of Quality and Enhancing Awareness of Its Importance

- **Activating specialized training programs for faculty members to enhance their understanding of academic quality standards and train them on the latest teaching and evaluation strategies.**
- **Implementing awareness campaigns targeting students and administrators to raise their awareness of the importance of academic quality and encourage them to adopt practices that promote a positive learning environment.**
- **Incorporating concepts of quality and academic accreditation assurance into the curriculum, ensuring students are trained to be part of the continuous development and improvement process.**

- **Launching initiatives to honor those who excel in applying quality standards, whether among faculty members or students, to encourage competitiveness and excellence within academic institutions.**

Achieving these recommendations requires a joint commitment from all stakeholders in the higher education sector. Building an educational system capable of facing future challenges necessitates a comprehensive strategic approach that takes into account global developments and fosters a culture of innovation and quality within academic institutions.

Thus, applying this vision contributes to preparing a generation of graduates who possess the knowledge and skills required to enter the labor market competently and enhances the position of Iraqi universities on both regional and global levels, achieving sustainable development and contributing to building an advanced knowledge society.

Appendices

Questionnaire about the vision, mission and goals - procedures for preparing and reviewing the vision, mission, goals and objectives

Department/Computer Science:

This questionnaire is filled out by students, graduates, and teachers who are related to the department (attached are the mission, vision, and goals)

Please put a tick (√) against the answer of your choice: The first answer: related to assessing the extent to which you agree with the expression contained in the clause. The second answer: related to assessing the importance of this item from your point of view.		The first answer 1- Completely disagree. 2-Mostly disagree. 3- Partially agree-.4-Mostly OK. 5- Totally agree.					The second answer 1-Not important. 2- Mostly unimportant. 3- Relatively important. 4-Mostly important. 5- Very important				
No	**Clause**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
1	Evaluate the extent to which the wording of the department's message matches the actual role it performs										
2	Evaluate the extent to which the department's message format covers (comprehensively) the tasks it must achieve										
3	Evaluate the objectivity and accuracy of the words used in the format of the department letter										
4	Evaluate how clear the format of the section message is and how easy it is for the reader to understand										
5	Evaluate the extent to which the department's message has been communicated through billboards or through publications										

6	Evaluate the extent to which the actual achievements achieved are consistent with the content of the department's stated mission										
7	Evaluate the extent to which the stated objectives cover (comprehensiveness) the tasks that the department actually performs										
8	Evaluate the extent to which the stated goals are realistic and objective in reflecting what is actually achieved in the department										
9	Evaluate the accuracy and clarity of the linguistic formulation in expressing the department's objectives										
10	Evaluate how realistic and objective the department's vision is with what can be achieved in five years										
11	Evaluate the extent to which the actual achievements achieved are related to the content of the department's vision										
12	Evaluate the extent to which the content of the department's message is consistent with the content of the college's message										
13	Evaluate the extent to which the content of the department's vision is consistent with the content of the college's vision										

name		Profession	
Signature		date	

Questionnaire about the vision, mission and goals - procedures for preparing and reviewing the vision, mission, goals and objectives

Note: If there is any amendment, deletion, addition or criticism to the message, goals or vision, please pin it here

About the department's vision:
About the department's objectives:
About the department message:
About the vision of the college:
About the college's mission:


Self-Assessment Report
Computer Science
Department