



جامعة البريمي  
UNIVERSITY OF BURAIMI

# College of Engineering كلية الهندسة Catalogue



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# Message from the Dean



**Professor Sam Chris Wamuziri**

Dean, College of Engineering



## Dear Professionals & Students,

It gives me great pleasure to welcome you to the College of Engineering at the University of Buraimi. The College offers six programs at Diploma level, seven programs at Bachelor's level and two programs at the Master's level. The undergraduate programs are Architectural Engineering, Civil Engineering, Computer Engineering, Information and Communication Engineering, Interior Architecture, Mechanical Engineering, Artificial Intelligence, and Renewable Energy. The postgraduate programs are the Master of Science in Cybersecurity and the Master's degree in Engineering Management.

The College of Engineering has continued to grow since its establishment in 2010. The programs offered reflect the skills needed to deliver Oman Vision 2040 and the United Nations Sustainable Development Goals. As a college, we are vibrant, ambitious and confident of our future. Our students are at the heart of our mission which is to provide a learner-centered environment through innovative education that contributes to enhancement of their life chances. The College has an extensive range of modern classrooms, laboratories, workshops, and studios to facilitate learning and teaching.

We teach our students to be solidly grounded in the fundamentals of their discipline to enable them to tackle complex real-world problems. A solid grounding also serves as a foundation on which to build knowledge and expertise through life-long learning. We train our students to acquire transferable skills that employers demand worldwide: skills of communication, teamwork, information technology, motivation, leadership and enterprise. We seek to develop employable graduates who are innovators and responsible citizens.

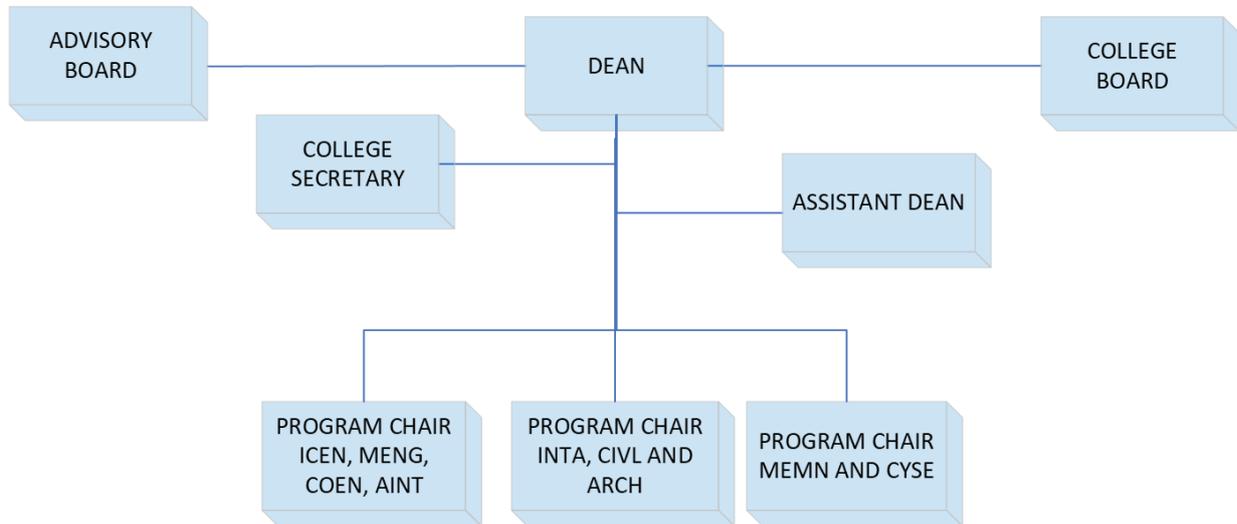


# About the College

## About

The College of Engineering (CoE), as part of UoB, considers the students as its most precious product and is committed to do its best to assure quality education and ethics for future leaders in their field. The CoE offers seven programs currently at the Bachelor and Diploma levels. These programs are Architectural Engineering, Artificial Intelligence, Civil Engineering, Computer Engineering, Information and Communication Engineering, Interior Architecture and Mechanical Engineering and two Masters programs, these are Masters in cyber security and Masters in Engineering Management.

## College Structure



**\*Note:**

ICEN: Information and Communication Engineering  
 MENG: Mechanical Engineering  
 COEN: Computer Engineering  
 AINT: Artificial Intelligence  
 INTA: Interior Architecture

CIVL: Civil Engineering  
 ARCH: Architectural Engineering  
 MEMN: Master in Engineering Management  
 CYSE: Master in Cybersecurity

## 1.1 Bachelor of Science in Architectural Engineering

### 1.1.1 Program Information

The architectural engineering program will provide students with the tools necessary to solve architectural problems critical to our society's well-being. This will be accomplished through a comprehensive, forward-looking and broad-based architectural engineering curriculum emphasizing fundamentals, practical applications, oral and written communication skills, computer applications skills, and professional practice issues and ethics. The program will prepare graduates for entry into the architecture profession, for life-long learning, and to function as architects in a global society.

### 1.1.2 Admission Requirement

For direct entry to the Architectural Engineering program into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
- Study skills
- Math
- Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;
- To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required.

### 1.1.3 Program Objective

The program has the following objectives to be attained by the alumni about 3-2 years after graduation:

**P01:** Graduates are expected to succeed as architectural engineers who are able to apply sound engineering principles to unravel problems related to complex design/projects.

**P02:** Graduates are expected to engage in lifelong learning and contribute to society by designing structurally resilient buildings each embedding a unique signature.

## 1.1.4 Student Outcome

- A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- B1. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- C1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- C2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- D1. an ability to communicate effectively with a range of audiences.
- D2. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- D3. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.1.5 Career Path

Being architecture engineer students are able to be an effective communicator equipped with necessary skills to coordinate between the different trades of the architectural engineering process both regionally and at an international level.

## 1.2 Bachelor of Science in Artificial Intelligence

### 1.2.1 Program Information

The program BSc in Artificial Intelligence at UoB is associated with the college of engineering. Artificial Intelligence (AI) is the attempt to build artificial systems that have intelligent behavior. The students study this program from the engineering perspective at UoB, rather than computer science alone. There are two main directions in this program. One is to enable students to comprehend natural intelligence through the utilization of computer models. The other enables students to develop methods and innovation to build systems capable of intelligent decisions and engineering actions. In this way, the AI that students learn is both a science and engineering discipline. Applications of AI range from “smart” controllers for household devices to computers that can converse in natural languages such as English, play computer games, conduct intelligent web searches, or act as the brain of a robot. The recent major trend is the Fourth Industrial Revolution or Industry 4.0 for establishing a “smart factory”. It is an integration of Computer Engineering and smart solutions, for the automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of Things, cloud computing, and cognitive computing. At UoB, the students learn and experience them during their study for BSc in AIEN.

### 1.2.2 Admission Requirement

Direct Entry to the BSc in Artificial Intelligence Engineering program .

For direct entry into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
  - Study skills
  - Math
  - Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;
  - To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required

## 1.2.3 Program Objective

The program has the following objectives to be attained by the alumni about 3-2 years after graduation:

P01: Graduates are expected to succeed in a career in Artificial Intelligence in Engineering

P02: Graduates are expected to contribute to society through research or professional and ethical practice in Artificial Intelligence in Engineering

## 1.2.4 Student Outcome

A1. An ability to identify, formulate, and solve complex computing in engineering problems by applying principles of engineering, science, mathematics, and computing.

B1. An ability to apply engineering design to produce computing-based solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

C1. An ability to communicate effectively with a range of audiences.

C2. An ability to recognize ethical and professional responsibilities in computing-based engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

D1. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D2. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

D3. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.2.5 Career Path

Artificial intelligence program graduates can begin their career path in public or private organizations. In the governmental sector, they can find an opportunity in the Ministry of Transportation, Information Technology and Communications, and also in communications and information technology departments in government organizations and in the Military and Security services sectors. In the private sector, they can work in the information and communication technology sector, and in the Organizations that supervise these sectors. As for students who prefer independence and enjoy the potential for self-success, they may start their own small businesses as technicians in the field of Artificial Intelligence and Machine Learning.

## 1.3 Bachelor of Science in Interior Architecture

### 1.3.1 Program Information

The Interior Architecture Engineering program curriculum provides the students with breadth of knowledge sufficient to understand the underlying concepts of the various components of Architecture Engineering and Interior Design. In addition, the students acquire depth that is sufficient to begin a successful career in the private/industry/government sectors, or seek graduate studies aiming towards a career in academe.

### 1.3.2 Admission Requirement

For direct entry to the Interior Engineering program into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
- Study skills
- Math
- Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required.
- To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required

### 1.3.3 Program Objective

The Interior Architecture program has the following objectives to be attained by the alumni about 3-2 years after graduation:

PO1: Graduates are expected to succeed in a career as interior architects;

PO2: Graduates are expected to contribute to society through research or professional and ethical practice in Interior Architecture.

## 1.3.4 Student Outcome

A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

B1.an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

C1.an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

C2.an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

D1.an ability to communicate effectively with a range of audiences.

D2.an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D3.an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.3.5 Career Path

Interior designers are professionals who design and decorate indoor spaces to make them both functional and beautiful. They can work in a variety of settings, including their own businesses, retail stores, design firms, and corporations. Interior designers need to have a strong understanding of design principles, software, and current trends. They help their clients to create spaces that are both comfortable and stylish.

## 1.4 Bachelor of Science in Civil Engineering

### 1.4.1 Program Information

The civil engineering program covers some areas of specialization in civil engineering, in addition to extra skills to enable civil engineers fulfilling their due responsibilities. The program degree plan starts with basic science courses in the first two semesters as a preparation of the student to the main program curriculum. Specialty courses will start in the third semester with introductory courses focusing on the various areas of civil engineering, followed by various specialization options in the advanced modules. This structure allows students to proceed in specialization gradually. The areas that are covered in this program are structural engineering, geotechnical and material engineering, highway and transportation engineering, water resources engineering, environmental engineering, and construction management. The program is enhanced by a series of experimentation in different fields of civil engineering and practical training to develop practical skills of civil engineering.

### 1.4.2 Admission Requirement

For direct entry to the Civil Engineering program into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
  - Study skills
  - Math
  - Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;  
To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required

### 1.4.3 Program Objective

The program has the following objectives to be attained by the alumni about 3-2 years after graduation:

P01: Graduates are expected to succeed in a career as civil engineers

P02: Graduates are expected to contribute to society through research or professional and ethical practice in Civil Engineering.

## 1.4.4 Student Outcome

A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

B1.an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

C1.an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

C2.an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

D1.an ability to communicate effectively with a range of audiences.

D2.an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D3.an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.4.5 Career Path

Civil engineers can work on projects of all sizes, from small residential developments to large infrastructure projects such as bridges, roads, and dams. They can also work in a variety of different industries, including construction, transportation, water resources, and environmental engineering.

## 1.5 Bachelor of Science in Computer Engineering

### 1.5.1 Program Information

The Bachelor of Computer Engineering program provides a broad focus on digital circuit design and digital computer systems design, computer architecture, computer hardware and organization, computer programming and software, algorithms analysis and design, data communication and networks, data management and security. The computer engineering degree program has been designed to provide our students with breadth in engineering, the sciences, mathematics, and the humanities, as well as depth in both software and hardware disciplines appropriate for a computer engineer.

### 1.5.2 Admission Requirement

Direct Entry to the Computer Engineering program

For direct entry into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
  - Study skills
  - Math
  - Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;
  - To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required

### 1.5.3 Program Objective

The Computer Engineering program has the following objectives to be attained by the alumni about 3-2 years after graduation:

PO1: Graduates are expected to succeed in a career as computer engineers

PO2: Graduates are expected to contribute to society through research or professional and ethical practice in Computer Engineering.

## 1.5.4 Student Outcome

A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

B1. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

C1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

C2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

D1. An ability to communicate effectively with a range of audiences.

D2. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D3. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.5.5 Career Path

If you are wondering what to do after earning a computer engineering degree, you have many options. Some common specializations include software engineering, computer science, and information technology. Software engineers design, develop, and test software applications. Computer scientists conduct research and develop new computer technologies. Information technology professionals manage and support computer systems and networks.

## 1.6 Bachelor of Science in Information and Communication Engineering

### 1.6.1 Program Information

The Bachelor of Information and Communication Engineering (ICEN) program combines traditional telecommunications engineering topics with current information technology, software engineering, and data analysis topics. The program is concerned with the theory, design, and application of electrical phenomena and digital computers, including electronic circuits, signal analysis, system design, and computer architecture. The department displays strengths in such diverse areas as signal and image processing, data and network security, digital computer systems design, telecommunications, and controls. The program balances theoretical and practical experience in information and communications engineering through analysis, synthesis, and experimentation, using various instructional laboratories and student-centered learning methodologies.

### 1.6.2 Admission Requirement

For direct entry to the Information and Communication Engineering program into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
  - Study skills
  - Math
  - Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;
  - To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required.

### 1.6.3 Program Objective

The program has the following objectives to be attained by the alumni about 3-2 years after graduation:

P01: Graduates are expected to succeed in a career as information and communication engineers.

P02: Graduates are expected to contribute to society through research or professional and ethical practice in Information and Communication Engineering.

## 1.6.4 Student Outcome

A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

B1. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

C1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

C2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

D1. An ability to communicate effectively with a range of audiences.

D2. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D3. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.6.5 Career Path

An BSc in Information and Communication Engineering program can provide a strong foundation for a career in the field of information and communication engineering. Graduates of the program may have a wide range of career options in industries such as telecommunications, computer networking, software development, and information security.

# Program Information

## 1.7 Bachelor of Science in Mechanical Engineering

### 1.7.1 Program Information

Mechanical Engineering is a professional discipline that addresses the utilization of technological and scientific know-how to advance the efficiency, safety, utility and reliability of mechanical and thermal systems for the benefit of humanity. Nowadays, engineering is more interdisciplinary, team-oriented, and environmentally sensitive than ever before.

This program encompasses the traditional roles of Mechanical Engineering in areas of analysis, design, manufacturing, and testing of mechanical and thermal systems (i.e., boilers, steam plants, heat exchangers, hydraulic systems, refrigeration, etc.), while also including emphasis in system integration, propulsion systems, concurrent engineering, and other competitive engineering practices. Design to manufacture considers additional elements such as consumer satisfaction, time to market, and others.

### 1.7.2 Admission Requirement

For direct entry to the Mechanical Engineering program into the College of Engineering, the student should have General Education Diploma (12th standard) or certified equivalent with overall score of C and minimum of grade D in Advanced Mathematics, English and (Physics or Chemistry).

The student should also successfully complete the General Foundation program with an overall score of %65 in the following areas:

- English proficiency
  - Study skills
  - Math
  - Information Technology
- To be exempted from the GFP (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required;
  - To be exempted from the GFP (IT Component), an ICDL Certificate in English or its equivalent is required

### 1.7.3 Program Objective

The Mechanical Engineering program has the following objectives to be attained by the alumni about 3-2 years after graduation:

PO1: Graduates are expected to succeed in a career as mechanical engineers.

PO2: Graduates are expected to contribute to society through research or professional and ethical practice in Mechanical Engineering.

## 1.7.4 Student Outcome

A1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

B1.an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

C1.an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

C2.an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

D1.an ability to communicate effectively with a range of audiences.

D2.an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

D3.an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## 1.8 Master of Science in Cybersecurity

### 1.8.1 Program Information

The program Master of Science in Cybersecurity of UOB aims to give the knowledge to the students in the area of computer systems, communication networks & systems, computer-based security systems, cryptography, cybercrimes, digital forensics, optimization techniques, and research methodologies. It places special emphasis on developing the technical as well as generic skills so that the students are well qualified for immediate employment and can effectively contribute to the technological advances in network security, precisely cyber security. The program also seeks to prepare the students to develop the scientific research skills in their area of interest.

### 1.8.2 Admission Requirement

Regular Admission Requirements:

1. Completion of a recognized baccalaureate degree in an appropriate discipline.
2. A minimum cumulative GPA of 2.5 on a 4.0 scale or its established equivalent, in the applicant's baccalaureate degree program. Lower GPAs may be considered for exceptionally strong experience cases and these cases need to be reviewed by the Postgraduate Admission Committee.
3. A minimum of IELTS 6.0 or its equivalent in the last 2 years or a graduate of an institution having English as the medium of instruction. However, as an exception to this requirement, an applicant with an undergraduate qualification will be exempted from this requirement given that he/she provides evidence of acquiring IELTS 6.0 or its equivalent at the time of joining his BSc program.
4. Interview/Selection process with the Postgraduate Admission Committee.

#### Conditional Admission Requirements:

A student with a recognized baccalaureate degree in a discipline appropriate with a cumulative GPA of 2.00 to 2.49 on a 4.0 scale, or its established equivalent and satisfied for English requirements, he/she needs to pass the personal interview with the Postgraduate Admission Committee and is recommended to take the required Pre-Master courses as per the committee.

### 1.8.3 Program Objective

The program has the following objectives to be attained by the alumni about 3-2 years after graduation:

P01: Advance in their career in the area of cybersecurity

P02: Contribute to the development of the society through research, and/or and professional practices

### 1.8.4 Student Outcome

A1. An ability to apply knowledge of computer systems, and security concepts.

A2. An understanding of professional and ethical responsibility.

A3. An understanding of the impact of cybersecurity solutions in a variety of context.

B1. An ability to design, simulate and conduct experiments, as well as to analyze and interpret secure systems.

B2. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

C1. An ability to design a computer based secure system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, and sustainability.

C2. An ability to identify, formulate, and solve security problems.

D1. An ability to function on multidisciplinary teams.

D2. An ability to communicate effectively.

D3. Recognition of the need for, and an ability to engage in life-long learning.

### 1.8.5 Career Path

- Cyber security degree graduates are in high demand because companies need help protecting their data. Some of the job opportunities for cyber security graduates include:
- Ethical hacking: Identifying and exploiting security vulnerabilities in computer systems and networks to help companies improve their security posture.
- Penetration testing: Simulating cyberattacks to identify and mitigate security risks.
- Cryptographic expertise: Using cryptography to protect data from unauthorized access, disclosure, modification, or destruction.
- Security software development: Developing and maintaining security software to protect computer systems and networks from cyberattacks.
- Cyber legal services: Advising companies on cyber security law and compliance.

## 1.9 Master in Engineering Management

### 1.9.1 Program Information

The Master of Engineering Management program aims to produce engineering professionals with the knowledge and skills required for promoting them as leaders in the engineering fields. The course will develop the expertise and skills to manage technology innovation across engineering industries, helping businesses respond to rapid change. The students get the knowledge to bridge the communication gap between engineering and managers. There's great demand in all industries for professionals with engineering management skills and expertise. After the course, the students will be able to take on technical and management roles in various industries.

### 1.9.2 Admission Requirement

- A. Regular Admission Requirements:
- Completion of a recognized bachelor degree in any Engineering specialty or engineering sub-specialty with GPA 2.5 or equivalent.
- A minimum cumulative GPA of 2.5 on a 4.0 scale or its established equivalent, in the applicant's baccalaureate degree program. Lower GPAs may be considered for exceptionally strong experience cases and these cases need to be reviewed by the Postgraduate Admission Committee.
- A minimum of IELTS 6.0 or its equivalent in the last 2 years.
- Interview/Selection process with the Postgraduate Admission Committee.
- B. Conditional Admission Requirements:
- A student with a recognized baccalaureate degree in a discipline appropriate with a cumulative GPA of 2.00 to 2.49 on a 4.0 scale, or its established equivalent and satisfied for English requirements, he/she needs to pass the personal interview with the Postgraduate Admission Committee and is recommended to take the required Pre-Master courses as per the committee.

### 1.9.3 Program Objective

Graduates of the Master of Engineering Management, 3-2 years after graduation are expected:

PO1: Develop specialist knowledge of engineering management theories, methods, practices and strategies to establish a successful engineering management career in industry or government.

PO2: To Contribute to the development of the society through research, and/or and professional practices.

## 1.9.4 Student Outcome

A1: Apply knowledge of management and managerial systems along with relevant field to the engineering fields.

A2: Design, simulate and conduct, as well as to analyse and interpret management systems for engineering firms.

B1: Use the techniques, skills, and modern engineering tools necessary for engineering management practice.

C2. Communicate effectively and utilize the modern technologies Identify, formulates, and solves engineering management problems.

C1: Design a management system, component, or process to meet desired needs within realistic constraints such as economic, social, political, ethical, health and safety, and sustainability

C2: Communicate effectively and utilize the modern technologies

D1: Understand the impact of management aspects on engineering firms in variety of context.

D2: Recognize of the need for engagement in life-long learning

## 1.9.5 Career Path

MEM graduates are skilled in both engineering and management, making them ideal candidates for leadership positions in a variety of industries. Their jobs typically involve overseeing projects, managing teams, and optimizing processes to ensure efficient and effective operations.

## 1.10 Diploma in Renewable Energy Technology

### 1.10.1 Program Information

The Diploma in Renewable Energy Technology aims to prepare graduates for work in the renewable energy field, particularly in the installation and maintenance of solar and energy systems. The program equips graduates with the knowledge and skills that enable them to continue their studies to a higher degree.

### 1.10.2 Admission Requirement

Before joining the College of Engineering, the student normally undertakes studies in the General Foundation Program first, which requires having a General Education Diploma (12th grade) or a certified equivalent with an overall score of "C" and a minimum of grade "D" in Pure Mathematics, English and (either Physics or Chemistry). For admission to the program, the student should also successfully completed the General Foundation Program with an overall score of %65 in the following Components:

- English
- Mathematics (Math)
- Information Technology (IT)

There is a Placement Test for each of the 3 components of the General Foundation Program, and Students with a high score (%90 and above) and then pass a subsequent test (Challenge Exam) with a score %65 or above are exempted from the above respective component. To be exempted from the (English Component), a minimum score of 5.00 in IELTS certificate or equivalent is required. To be exempted from the (IT Component), an ICDL Certificate in English or its equivalent is required. To be exempted from the (Math Component), a score of 800/600 in the Math section of the SAT exam is required.

### 1.10.3 Program Objective

The Diploma in Renewable Energy Technology program has the following program objectives to be attained by the student upon graduation:

1. Graduates are expected to be able to contribute to the field of sustainable environment through renewable energy technology, in alignment with Oman's 2040 vision.
- 2: Graduates are expected to gain skills related to economy competitiveness, entrepreneurship, and an innovative society, in alignment with Oman's 2040 vision.

## 1.10.4 Student Outcome

By the end of the Diploma in Renewable Energy Technology program, the student is expected to have:

- (1) an ability to apply mathematics, science, engineering, and technology in problems appropriate to renewable energy technology.
- (2) an ability to conduct measurements and experiments appropriate to renewable energy technology.
- (3) an ability to assist with the design of systems, components, or processes appropriate to renewable energy technology.
- (4) an ability to communicate by writing, orally, or graphically in technical and non-technical environments.
- (5) an ability to function effectively as a member of a technical team

## 1.10.5 Career Path

Students on completion of the program will play a pivotal role in the energy transition. They will find employment opportunities in a whole variety of sectors that contribute to the preservation and restoration of the environment. Graduates from the program will find jobs in traditional industries such as construction, manufacturing, materials supplies and in emerging green sectors in energy efficiency and renewable energy. Students may undertake further studies leading to the award of a bachelor's degree or after some experience a master's degree.

# Dean Office



**Professor Sam Chris Wamuziri**  
Dean, College of Engineering



**Ms. Fatema Al-Shibli**  
Coordinator, CoE  
BSc Degree (2012)  
English Literature  
Buraimi University College, Oman

# Faculty Profile

## ARCHITECTURAL ENGINEERING AND INTERIOR ARCHITECTURE PROGRAMS



**Dr. Ahmed Kandil**  
Assistant Professor  
PhD Degree (2013), Port Said University,  
Egypt  
Research Interest:  
Digital Architecture  
Environmental Architecture  
Virtual Reality



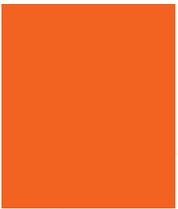
**Dr. Basma Gbr**  
Assistant Professor  
Ph.D. Degree (2022), Alexandria  
University, Egypt  
Research Interest:  
Robotic Technology  
Artificial Intelligence  
Identity , Interactive and Parametric  
design  
Adaptive Spaces



**Dr. Peter Akadiri**  
Associate Professor  
PhD Degree (2011),  
University of Wolver Hampton, UK  
Research Interest:  
High Performance Green Buildings  
Urban Housing and Sustainability



**Eng. Sawsan Domi**  
Lecturer  
MSc Degree (2011),  
University of Nottingham, UK  
Research Interest:  
Building Design and Construction  
Building Conservation and  
Rehabilitation



**Dr. Rehab Moussa**  
Assistant Professor  
PhD Degree (2015),  
Port Said University, Egypt  
Research Interest:  
Interior Design  
Virtual Reality Visualization  
Digital Architecture



**Eng. Sanaa Al-Senani**  
Lecturer  
MSc Degree (2017),  
UAE University, UAE  
Research Interest:  
Sustainable Community Development  
Urban and Regional Planning  
Sustainable Design



**Dr. Malatha Saif**  
Assistant Professor  
PhD Degree (2015), planning and  
urban design.  
Research Interest:  
Urban resilience  
Spatial political economy  
Patterns of urban development



**Eng. Lamia Al-Ghaithi**  
Lab Technician  
BSc Degree (2013),  
Architectural Engineering  
Higher College of Technology, Oman

# Faculty Profile

## CIVIL ENGINEERING PROGRAM



**Dr. Tawseef Ansari**  
Assistant Professor  
PhD Degree (2017),  
Visvesvaraya National Institute of Technology,  
India  
Research Interest:  
Impact of Urbanization Using RS and GIS  
Change Detection in Land Use



**Eng. Maryam Al-Kaabi**  
Lecturer  
MSc Degree (2020),  
United Arab Emirates University, UAE  
Research Interest:  
Sustainable Transportation Design  
The Use of Multi-Criteria  
Decision-Making Method in Evaluating  
Transport Sustainability



**Eng. Fakhra Ahmed Al ShamsiLab**  
Teaching Assistant  
BSc Degree (2021),  
University of Buraimi, Oman



**Eng. Sheikha Al-Naqabi**  
Lab Technician  
BSc Degree (2021),  
University of Buraimi, Oman



**Eng. Yahia Al-Kaabi**  
Teaching Assistant  
BSc Degree (2020)  
National University of Science and  
Technology



**Dr. Wael Al-Bawab**  
Assistant Professor  
PhD Degree (2005),  
Middle East Technical University,  
Turkey  
Research Interest:  
Geotechnical Earthquake Engineering  
Transportation Engineering



**Dr. Mohammed Ali**  
Assistant Professor  
PhD Degree (2017)  
Universiti Teknologi Malaysia (UTM) Malaysia  
Research Interest: Sustainable Urban  
Mobility, Data analysis, Traffic and  
Transportation Modeling & Simulation

# Faculty Profile

## INFORMATION AND COMMUNICATION ENGINEERING PROGRAM



**Dr. Degala Satyanarayana,**  
Associate Professor  
PhD Degree (2009), Indian Institute of Technology, India  
Research Interest:  
Wireless Communication  
Computer Networks  
Computational Geometry



**Dr. Abdul-Malik Haider**  
Assistant Professor  
PhD and MSc in computer and Electronic Engineering, and BEng in Computer Engineering.  
Research interest:  
Digital Systems Design  
Artificial Intelligence.



**Dr. Gopal Rathinam**  
Assistant Professor  
PhD Degree (2018), Anna University, India  
Research Interest:  
Wireless Sensor Network  
Internet of Things  
Network Security



**Dr. Nadir Salih**  
Assistant Professor  
PhD Degree (2014), Harbin Institute of Technology, China  
Research Interest:  
Autonomic Systems  
Cloud Computing



**Dr. Madan Sharma**  
Assistant Professor  
PhD Degree (2020), RTU, India  
Research Interest:  
Wireless Communication  
RF Circuits and Components Optimization  
Microwave Biomedical Sensors



**Eng. Alia Al-Azzani**  
Lecturer  
MSc Degree (2022), University of Buraimi, Oman  
Research Interest:  
(OSDS-CC) Optimal Secure Data Storage in cloud computing

# Faculty Profile

## MECHANICAL ENGINEERING PROGRAM



**Dr. Osama Marzouk**  
Assistant Professor  
PhD Degree (2009), Virginia Tech, USA  
Research Interest:  
Numerical Modeling



**Dr. Wan Ahmed**  
Assistant Professor  
Phd -2007 Post Doctorate -2008, Cardiff University  
Research Interest:  
Failure analysis  
Industrial Quality Assurance  
Reverse Engineering



**Eng. Arshad Mehmoud**  
Assistant Professor  
MSc Degree (2012),  
Aligarh Muslim University, India  
Research Interest:  
Vibration and Nonlinear Dynamics  
Design of Machine Element  
Machine Theory and Mechanism

## GENERAL ENGINEERING FACULTY



**Dr. Saleem Ahmed**  
Assistant Professor  
PhD Degree (2011),  
State University of New York at Buffalo,  
USA  
Research Interest:  
Applied Mathematics



**Dr. Musthafa Ibrahim**  
Lecturer  
PhD Degree (2021),  
University of Madras, India  
Research Interest:  
Complex Analysis  
Univalent Functions



**Dr. Badriya AL Hashmi**  
Assistant Professor  
Phd -2019 \ University of warwick -UK  
Research Interest:  
Materials Science  
Solid state science\ Semiconductors

# Alumni Success Stories

Eng. Alaya Al Azzani

In 2011, I joined the University of Buraimi as a bachelor's student in the Information and Communication Engineering program. I cannot forget how my feelings were at the graduation stage when I received my certificate of excellence with honour. I was so proud to graduate from this university. My proud feeling was not stopped in this phase when I returned to work under the academic roof as a Teaching Assistant, where I had an unforgettable academic experience that led me to complete my master's studies and graduate with excellence and an honour certificate in the cybersecurity program. Today, I am proudly a lecturer in this college. I am very grateful to the University of Buraimi and to everyone who has contributed to my achievements and my academic career.

With all my sincerity,

Eng. Ahmed Al-Maqbali

" I studied mechanical engineering at University of Buraimi , and after overcoming the challenges of my studies and hard work, I found a remarkable opportunity for employment as a laboratory technician within the same university that played a significant role in my educational journey. In this inspiring academic environment, I didn't stop at merely achieving my own dreams; I wanted to give back and dedicate myself to supporting the upcoming generations of students. I shared my experience and knowledge to help them achieve their academic and professional goals “.

# Alumni Success Stories

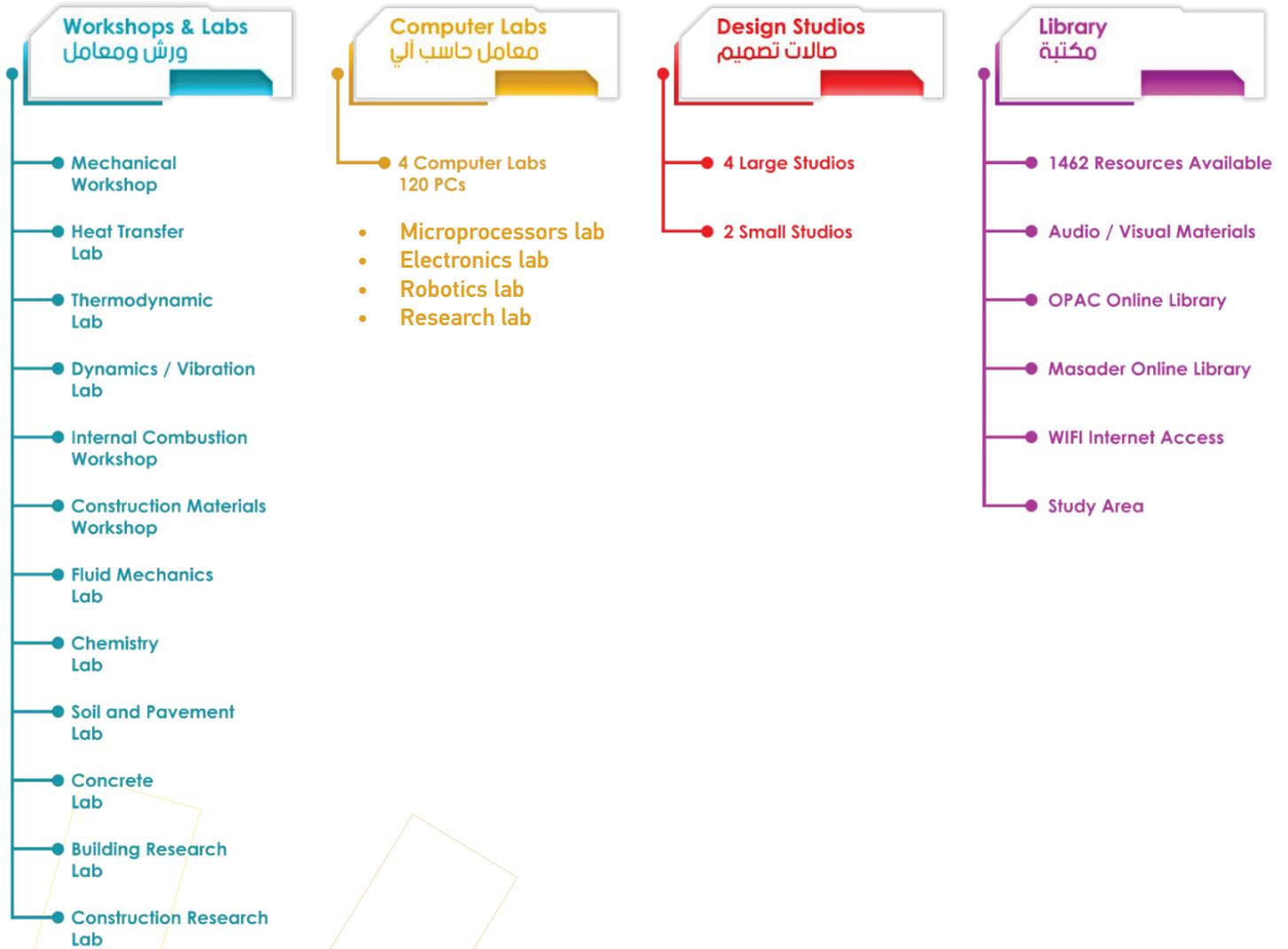
## Sheikha Al-Naqbi

Everyone has a unique success story, and mine began and continues here. In the UOB campus, my efforts saw the light continuously from the foundation year until the fourth year, the campus with all its support and love, my professors, the university library, and even the food court and the bus station! Experienced the best memories ever. All those people and all those places led me to this success, I wasn't missing anything to get a graduation certificate with "excellent and Second Class Honors in Civil Engineering," And now I am back to continue the path of success where I gained my dreams, wishing to raise another again as an employee in the College of Engineering at the UoB.  
Blessed to be here now, where I belong!

## Eng. Fakhra Ahmed Al Shamsi (Graduate of 2021)

From UOB Civil Engineering Graduate to Inspiring Teaching Assistant  
As an alumna of the Civil Engineering Department at Buraimi University, my journey has come full circle as I've returned to this esteemed institution as a teaching assistant. My story is one of growth, learning, and inspiration, and it's a testament to the exceptional education and opportunities provided by Buraimi University.  
I graduated from the Civil Engineering Department with a solid foundation in engineering principles, problem-solving skills, and a commitment to ethical engineering practices. These qualities, instilled in me during my time at Buraimi University, have been the guiding stars of my career. Following my graduation, I ventured into a diverse range of challenging civil engineering projects. These real-world experiences further solidified the knowledge and skills.

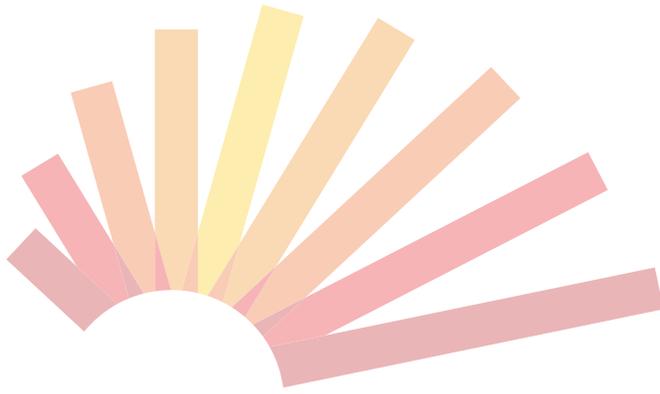
# Resources and Facilities



# Key Achievements Last Year

- The Program Diploma in Renewable Energy Technology has been approved.
- The Curriculum Revisions for BSc in Computer Engineering program was submitted to MOHERI and waiting for the reviewer comments.
- Phase III lab equipment were delivered for some programs/courses and waiting for the remaining equipment.
- Two faculty and student appreciation events conducted.
- Total number of research publications 33; Journals 20; Book chapters 2; conferences 11;
- Publication Indexing: Web of Science Indexed Journals= 8; Scopus Indexed Journals= 18; Scopus Indexed book chapters= 2; Scopus Indexed Conferences =5 The number of student publications = 8
- Research proposals submitted for external grants: TRC BFP RG Projects = 6 ; TRC URG projects =1
- UoB Internal Research Grants submitted = 2
- Completed TRC URG Project =1
- Internal Research Grant Completed =1
- The number of field trips = 12
- COE faculty and students successfully organized 2nd Academic Week in July 2023
- The number of COE students who passed competition test to join EIDAAD in AY 4 = 24-2023

We like to change for  
better and we invite you to  
join us!



جامعة البريمي  
UNIVERSITY OF BURAIMI