



ANNUAL REPORT

COLLEGE OF ENGINEERING

2016





2016 Annual Report

College of Engineering

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PUBLICATION AND WEB COMMITTEE



FOCUSING ON PUBLICATIONS OF OUR COLLEGE

Prof. Sabah Ahmed Al-Sulaiman (Chair, Department of Mechanical and Industrial Engineering)

Dr. Ashish Gujarathi (Department of Petroleum and Chemical Engineering)

Dr. Mohammed Bilal Waris (Department of Civil and Architectural Engineering)

Dr. Mohammed M. Bait-Suwailam (Department of Electrical and Computer Engineering)

Eng. Mohsen Ghanma (Department of Civil and Architectural Engineering)

Mr. Ibrahim Mattar Al-Saifi (Assistant Director of Administration, Dean`s Office)

Mr. Ahmed Al-Kharboushi (Dean`s Office)

Directions by:

Prof. Abdullah Hamed Al-Badi (Dean, College of Engineering)

Designed by:

Sharifa Khamis Al-Jabri (Center for Educational Technology)

Qasim Said Al-Habsi

Photographs by:

Mr. Sagharoun Said Al-Hammadi (Center for Educational Technology)

Mr. Mohammed Ali Al-Mawali (Center for Educational Technology)

Mr. Nabil Humaid Al-Rawahi (Center for Educational Technology)

Mr. Yasser Saif Al-Shukaily (Center for Educational Technology)

Mr. Issa Salem Al-Fori (Dean`s Office)







College of Engineering



EXECUTIVE SUMMARY

The College of Engineering at Sultan Qaboos University is among the highly ranked engineering colleges in the Gulf Cooperation Council (GCC) countries. Its four departments offer eight ABET accredited undergraduate engineering programs in Architectural, Chemical and Process, Civil, Electrical and Computer, Industrial, Mechanical, Mechatronics, and Petroleum and Natural Gas Engineering. At the postgraduate level, it offers nine master's and six doctoral programs in various disciplines across the four departments. In addition, the college offers a joint undergraduate program in Agricultural Engineering, which is housed in the College of Agriculture and Marine Science (CAMS). Recently, the University Council approved the establishment of a new specialization, Biomedical Signals and Medical Devices, in the Department of Electrical and Computer Engineering.

The College of Engineering intake has been steadily increasing over the years reaching about 500 in 2016. The number of engineering students graduated in 2016 was 402. The total number of students currently registered in the college is around 2900 students.

The postgraduate students' enrollment has also been on the increase. The number of postgraduate students registered in 2016 has reached 99 students. The total number of master's students graduated in 2016 was 25. In the same year, the college graduated 6 PhD students, two from the Department of Mechanical and Industrial Engineering, three from the Department of Petroleum and Chemical Engineering and one from the Department of Electrical and Computer Engineering.



The college continues to attract research funding every year. In 2016, the funding for research and consultancy reached 564,590 OMR. The research projects in 2016 include 14 internally funded projects, 11 research/consultancy projects from industry, 1 collaborative SQU-UAEU project and 1 project from TRC. As for scholarly activities in 2016, the faculty in the college published 140 journal papers, 127 conference papers, 1 book, 8 book chapters and 47 technical reports.

Four faculty members joined the college in 2016 after finishing their higher studies. Two from the Department of Mechanical and Industrial Engineering and two from the Department of Electrical and Computer Engineering.

At the level of interaction with other colleges worldwide, the college organized and hosted the 23rd GCC Deans Meeting on the 3rd and 4th of April 2016. This is a yearly meeting where the GCC Deans of Engineering meet to share experiences and develop plans for furthering cooperation. Additionally, the college has contributed in the Global Engineering Deans Council Annual Meeting held in Seoul, Korea from the 6th to the 10th of November 2016. This is an international forum for exchange of information and discussion of experiences, challenges, and best practices in leading engineering colleges.

Prof. Abdullah Hamed Al-Badi
Dean, College of Engineering



DEAN'S OFFICE



Dr. Abdullah Hamed Al-Badi
Professor

Dean



Dr. Abdullah Al-Saidy
Associate Professor

Assistant Dean for Postgraduate Studies and Research (ADPSR)



Dr. Issam Bait Bahadur
Assistant Professor

Assistant Dean for Undergraduate Studies (ADUS)



Dr. Ghazi Al-Rawas
Assistant Professor

Assistant Dean for Training and Community Service (ADTCS)



Mrs. Badriya Al-Hashar

Director of Administration (DoA)



Ibrahim Mattar Al-Saifi

Assistant Director of Administration



Syed Muneer Uddin

Coordinator, Dean's Office



Shaima Majid Al-Zadjali

Coordinator, Dean's Office



Hanan Abdulla Al-Shuaili

Clerk, ADPSR



Ahmed Al-Kharboushi

Coordinator, ADPSR



Abdullah Omar Al-Ojaily

Clerk, ADTCS



Moadh Ahmed Al-Zadjali

Clerk, ADTCS



Sophie Tayco Soldevilla

Coordinator, ADUS



Hamed Hamood Al-Khanbashi

Clerk, College Administration



Issa Mattar Al-Saifi

Material Storekeeper



Ghareeb Khalfan Al-Mazrouey

Clerk, College Administration



Pyata H. Rao

Technical Editor, TJER



Mahmood Nasser Al-Tobi

College Computer Engineer



Khalfan Salem Al-Abri

College Computer Engineer



Mohamed Hussain Al-Mufarji

College Computer Engineer



Issa Salem Al-Fori

College Messenger



Khalfan Masi Al-Rubkhi

College Messenger

Rahma Salim Al-Bulushi

College Computer Engineer

Noura Hamood Al-Abri

Clerk, Dean's Office

Saida Hamed Al-Mashaikhi

Coordinator, ADUS





COLLEGE NEWS

New Academic Staff



Dr. Kazi Mohammed Abu Sohel
Assistant Professor

Department of Civil and Architectural Engineering



Dr. Razzaqul Ahshan
Assistant Professor

Department of Electrical and Computer Engineering



Dr. Osman Ahmed Elgawi
Assistant Professor

Department of Electrical and Computer Engineering



Dr. Morteza Mohammad
Assistant Professor

Department of Mechanical and Industrial Engineering



Dr. Mohammed Rashid Usman
Assistant Professor

Department of Petroleum and Chemical Engineering



Academic Staff on Scholarships

Department of Civil and Architectural Engineering



Mr. Mubarak Khamis Al-Alawi

Lecturer



Ms. Aliya Al-Hashim

Lecturer



Mrs. Hanan Al-Khatri

Lecturer

Department of Electrical and Computer Engineering

Mr. Said Salim Al-Abri

Lecturer

Department of Mechanical and Industrial Engineering



Mr. Mohammed Al-Lawati

Lecturer



COLLEGE COMMITTEES

College Board

Prof. Abdullah Al-Badi	Dean (Chair)
Dr. Issam Bait Bahadur	ADUS
Dr. Abdullah Al-Saidy	ADPSR
Dr. Ghazi Al-Rawas	ADTCS
Prof. Khalifa Al-Jabri	HoD, CAE
Dr. Nasser Hosseinzadeh	HoD, ECE
Dr. Nabeel Al-Rawahi	HoD, MIE
Prof. Rashid Al-Maamari	HoD, PCE
Dr. Saleh Al-Saadi	Invited Member, CAE
Prof. Hadj Bourdoucen	Invited Member, ECE
Dr. Rashid Al-Abri	Invited Member, ECE
Prof. Tasneem Pervez	Invited Member, MIE
Dr. Sayyad Zahid Qamar	Invited Member, MIE
Dr. Mohammed Al-Abri	Invited Member, PCE
Mrs. Badriya Al-Hashar	DoA
Mr. Syed Muneer Uddin	Secretary

Accommodation Committee

Prof. Abdullah Al-Badi	Dean (Chair)
Prof. Khalifa Al-Jabri	HoD, CAE
Dr. Nasser Hosseinzadeh	HoD, ECE
Dr. Nabeel Al-Rawahi	HoD, MIE
Prof. Rashid Al-Maamari	HoD, PCE
Mrs. Badriya Al-Hashar	DoA

Executive Committee

Prof. Abdullah Al-Badi	Dean (Chair)
Dr. Issam Bait Bahadur	ADUS
Dr. Abdullah Al-Saidy	ADPSR
Dr. Ghazi Al-Rawas	ADTCS
Prof. Khalifa Al-Jabri	HoD, CAE
Dr. Nasser Hosseinzadeh	HoD, ECE
Dr. Nabeel Al-Rawahi	HoD, MIE
Prof. Rashid Al-Maamari	HoD, PCE
Mrs. Badriya Al-Hashar	DoA

Postgraduate Studies and Research Committee

Prof. Abdullah Al-Badi	Dean (Chair)
Dr. Abdullah Al-Saidy	ADPSR (Co-Chair)
Dr. Mahad Baawain	CAE
Dr. Ahmed Al-Maashri	ECE
Dr. Khalid Zebdah	MIE
Dr. Gholamreza Vakili-Nejad	PCE

Information and Communication Technology Committee

Dr. Edris Hassan	MIE (Chair)
Dr. Mahmoud Abd El-Gelil	CAE
Dr. Fahad Bait-Shiginah	ECE
Dr. Adel Al-Ajmi	PCE
Mrs. Badriya Al-Hashar	DoA
Mr. Mahmood Al-Tobi	Computer Engineer

Accreditation Committee

Prof. Abdullah Al-Badi	Dean (Chair)
Dr. Faical Mnif	ECE (Co-Chair)
Dr. Issam Bait Bahadur	ADUS
Dr. Abdulaziz Al-Hashmi	PCE
Dr. Peyman Pourafshary	PCE
Dr. Amer Al-Yahmadi	MIE
Dr. Nassr Al-Hinai	IND
Prof. Awni Shaaban	CAE
Dr. Ahmed Sana	CAE
Prof. Afaq Ahmad	ECE
Dr. Nasser Tarhuni	ECE
Dr. Riadh Zaier	MCTE

Industrial Training and Alumni

Dr. Ghazi Al-Rawas	ADTCS (Chair)
Dr. Mohammed Al-Aghbari	CAE
Dr. Mohammed Al-Nadabi	ECE
Dr. Majid Al-Maharbi	MIE
Dr. Mojtaba Ghodsi	MCTE
Dr. Mohammad Al-Abri	PCE
Mr. Ibrahim Al-Saify	Deputy DoA

College Risk Management Committee

Dr. Omar Houache	PCE (Chair)
Dr. M. Abdullah Al-Mamun	CAE
Dr. Lazhar Khrijji	ECE
Dr. Ramanathan Arunachalam	MIE
Mr. Juma Al-Ruzaiqi	CAE
Mr. Sulaiman Al-Kalbani	ECE
Mr. Mohammed Al-Hadhrami	MIE
Mr. Nasser Al-Mandhari	PCE
Mrs. Badriya Al-Hashar	DoA

Publication and Web Committee

Prof. Sabah Al-Sulaiman	MIE (Chair)
Dr. Mohammed Bilal Waris	CAE
Dr. Mohammed Bait-Suwaitam	ECE
Dr. Ashish Gujarathi	PCE
Mr. Ibrahim Al-Saifi	Deputy DoA
Mr. Mohsen Ghanma	CAE

Curriculum and Timetabling Committee

Dr. Issam Bait Bahadur	ADUS (Chair)
Dr. Ali Al-Nuaimi	CAE
Dr. Naima Benkari	CAE
Dr. Zia Nadir	ECE
Dr. Joseph Jervase	ECE
Dr. Lazhar Khriji	MCE
Dr. Mohammed Khadem	MIE
Dr. Abdullah Al-Janabi	MIE
Dr. Hamoud Al-Hadrami	PCE
Dr. Jamil Naser	PCE

Engineering Society Advisors Committee

Dr. Ghazi Al-Rawas	ADTCS (Chair)
Dr. Mohammed Al-Aghbari	CAE
Dr. Chaham Alalouch	CAE
Dr. Chefi Triki	MIE
Dr. Edris Hassan	MIE
Dr. Ashraf Saleem	MCE
Dr. Ala'a Al-Muhtaseb	PCE
Dr. Adel Al-Ajmi	PCE
Mr. Taha Al-Saadi	ECE
Mr. Ibrahim Al-Saify	Coordinator/Deputy DoA

Social Activity Committee	Dr. Mahmoud Masoud	ECE (Chair)
	Dr. Mohammed Al-Shahri	CAE
	Dr. Mohammed Bait-Suwailam	ECE
	Dr. Nassr Al-Hinai	MIE
	Dr. Peyman Pourafshary	PCE
	Mr. Ibrahim Al-Saifi	Deputy DoA
	Mr. Mohamed Al-Mufarji	Computer Engineer
	Mr. Ahmed Al-Karboshi	Coordinator
	Mr. Hamed Al-Khanbashi	Coordinator
	Mrs. Basma Al-Farsi	Coordinator
Staff/Student Liaison Committee	Prof. Abdullah Al-Badi	Dean (Chair)
	Dr. Issam Bait Bahadur	ADUS (Co-Chair)
	Dr. Hossam Hassan	CAE
	Dr. Abdullah Al-Shabibi	MIE
	Dr. Jamil Nasser	PCE
	Mr. Salem Al-Hinai	ECE
College Strategic Planning and Development Committee	Prof. Abdullah Al-Badi	Dean (Chair)
	Dr. Abdullah Al-Saidy	ADPSR
	Dr. Issam Bait Bahadur	ADUS
	Dr. Ghazi Al-Rawas	ADTCS
	Prof. Khalifa Al-Jabri	HoD, CAE
	Dr. Nasser Hosseinzadeh	HoD, ECE
	Dr. Nabeel Al-Rawahi	HoD, MIE
	Prof. Rashid Al-Maamari	HoD, PCE
Dr. Joseph Jervase	ECE	
College Academic Promotions Committee	Prof. Abdullah Al-Badi	Dean (Chair)
	Prof. Khalifa Al-Jabri	HoD, CAE
	Prof. Hadj Bourdoucen	ECE
	Prof. Abdulnasir Hossen	ECE
	Prof. Tasneem Pervez	MIE
	Dr. Nabeel Al Rawahi	HoD, MIE
	Prof. Rashid Al-Maamari	HoD, PCE

Steering Committee for Mechatronics Engineering Program

Dr. Nasser Hosseinzadeh	HoD, ECE (Chair)
Dr. Nabeel Al-Rawahi	HoD, MIE (Co-Chair)
Dr. Lazhar Khriji	ECE (Program Coordinator)
Dr. Issam Bait Bahadur	MIE (ADUS)
Dr. Faical Mnif	ECE
Dr. Mohammed Shafiq	ECE
Dr. Ashraf Saleem	ECE
Dr. Ahmed Al-Maashari	ECE
Dr. Mojtaba Ghodsi	MIE
Dr. Amer Al-Yahmadi	MIE
Dr. Jamil Abdo	MIE
Dr. Riadh Zaier	MIE

Agriculture- Engineering Program Committee

Dr. Issam Bait Bahadur	ADUS
Dr. Ahmed Sana	CAE
Dr. Zahid Qamar	MIE

College Instructional Development Committee (CIDC)

Dr. Joseph Jervase	ECE (Chair)
Dr. Sherif El Gamal	CAE
Dr. Dawood Al-Abri	ECE
Dr. Nabeel Al-Rawahi	MIE
Dr. Jamil Nasser	PCE

Pre-Specialization Academic Advising Unit (PAAU)

Prof. Afaq Ahmad	ECE (Chair)
Dr. Mohammed Al-Aghbari	CAE
Dr. Yahia Mohamedzein	CAE
Dr. Naima Benkari	CAE
Dr. Mohammad Al-Nadabi	ECE
Dr. Amer Al -Yahmadi	MIE
Dr. Nasser Al-Azri	MIE
Dr. Chefi Triki	MIE
Dr. Mohammed Al-Abri	PCE
Dr. Hassan Abdellatif	PCE
Dr. Adel Al-Ajmi	PCE
Mr. Taha Al-Saadi	ECE

Training Committee for Staff

Dr. Ghazi Al-Rawas	ADTCS (Chair)
Mrs. Badriya Al-Hashar	DoA
Mr. Juma Al-Ruzaiqi	CAE, Superintendent
Mr. Saleem Al-Rashdi	ECE, Superintendent
Mr. Mohammad Al-Hadhrami	MIE, Workshop Superintendent
Mr. Faisal Al-Khatri	MIE, Superintendent
Mr. Nasser Al-Mandhary	PCE, Superintendent

College Industrial Advisory board

Prof. Abdullah Al-Badi	Dean (Chair)
Dr. Abdullah Al-Saidy	ADPSR
Dr. Ghazi Al-Rawas	ADTCS
Prof. Khalifa Al-Jabri	HoD, CAE
Dr. Nabeel Al-Rawahi	HoD, MIE
Prof. Ali Al-Harthy	CAE
Prof. Hadj Bourdoucen	ECE
Dr. Hamoud Al-Hadrami	PCE
Mr. Syed Muneer Uddin	Coordinator, Dean's Office
Hon. Shaikh Dr. Khattab Al-Hinai	State Council
Eng. Zahran Al-Oufi	Vice-Chair, General Manager, FALCON Oilfield Services
Eng. Zaher Al-Abri	General Manager, Mazoon Electricity Company
Mr. Harib Al-Kitani	CEO, Oman LNG
Dr. Saif Abdullah Al-Hiddabi	Assistant Secretary General for Research and Program, The Research Council
Eng. Salim Al-Kamyani	Member of State Council and Managing Director, Parsons International & Co
Eng. Said Al-Masoudi	CEO, Sohar Aluminium
Eng. Yousuf Ali Al-Harthy	CEO, Oman Technology Fund
Eng. Said Al-Mandhari	CEO, Oman Broadband

UNIVERSITY COMMITTEES



Academic Promotions Committee

Prof. Ali Salem Al-Harathi (CAE)

Quality Assurance Committee

Dr. Zahid Qamar (MIE)

Library Committee

Dr. Ahmed Sana (CAE)

PDO/SQU Liaison Committee

Dr. Abdullah Al-Saidy (ADPSR)
Prof. Rashid Al-Maamari (HoD, PCE)

Student Grievances Committee

Dr. Hamoud Al-Hadrami (PCE)

University Curriculum and Academic Policies Committee

Dr. Joseph Jervase (ECE)

Safety and Security Committee

Dr. Omar Houache (PCE)

Technical Committee Earthquake Monitoring Centre

Dr. Ghazi Al-Rawas (ADTCS)

Board of Postgraduate Studies

Dr. Abdullah Al-Saidy (ADPSR)

Board of Research

Dr. Abdullah Al-Saidy (ADPSR)

University Ranking Committee

Dr. Joseph Jervase (ECE)

Centre of Excellence in Teaching and Learning

Dr. Hamoud Al-Hadrami (PCE)
Dr. Joseph Jervase (ECE)



SUMMARY OF STUDENTS' ENROLLMENT

The College of Engineering has grown rapidly since its start in 1986 and currently the student population has increased to around 3038 students during the year 2016, compared to only 92 students in 1986.

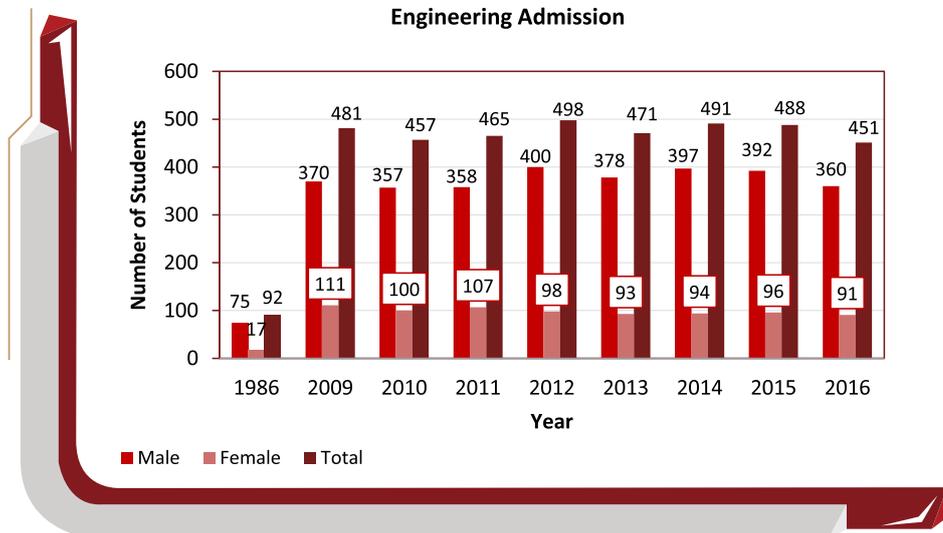


Figure A1: Annual College Admission

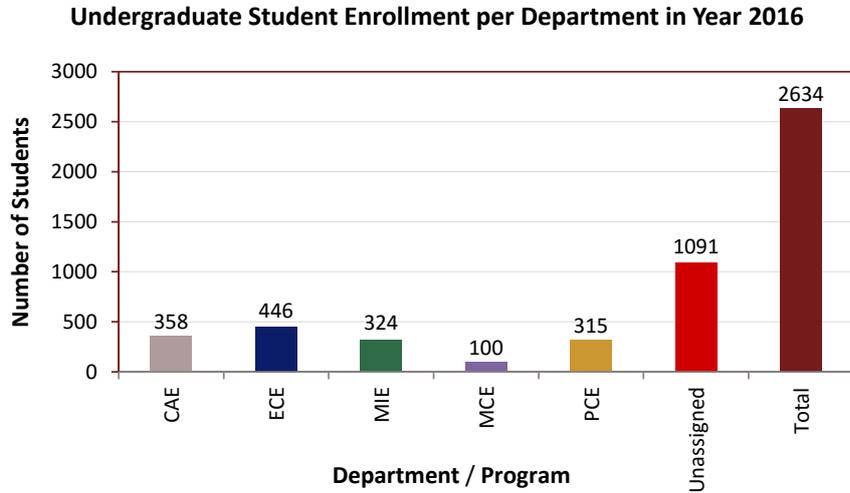


Figure A2: Enrollment in the Departments and Programs in Year 2016

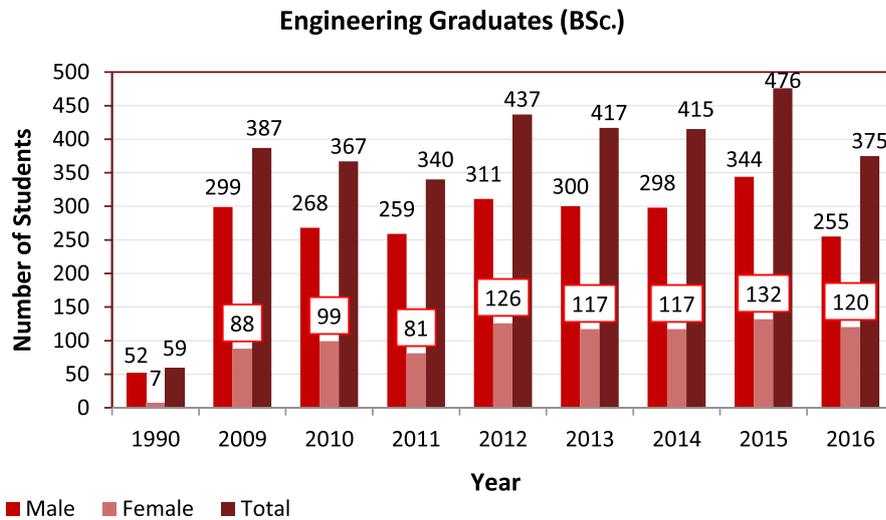


Figure A3: College's Graduates over the Past Eight Years

Students Graduated within Expected Period of Graduation

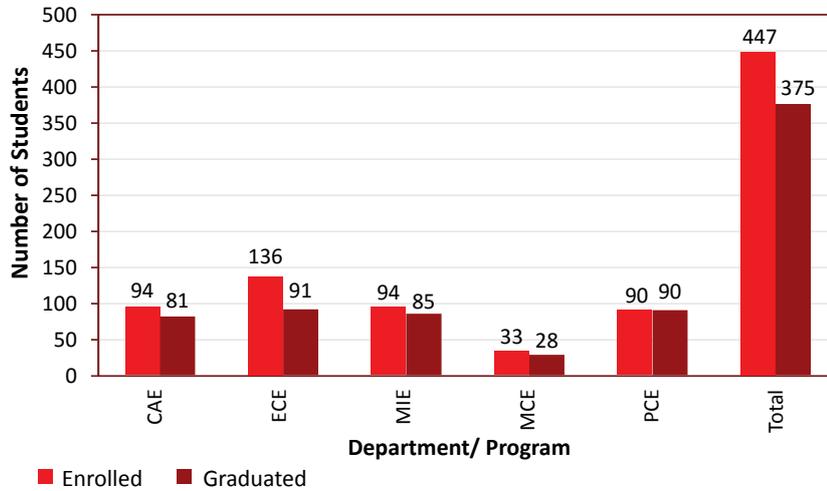


Figure A4: Students Graduated within Expected Period of Graduation in Year 2016

Undergraduate Students' Population

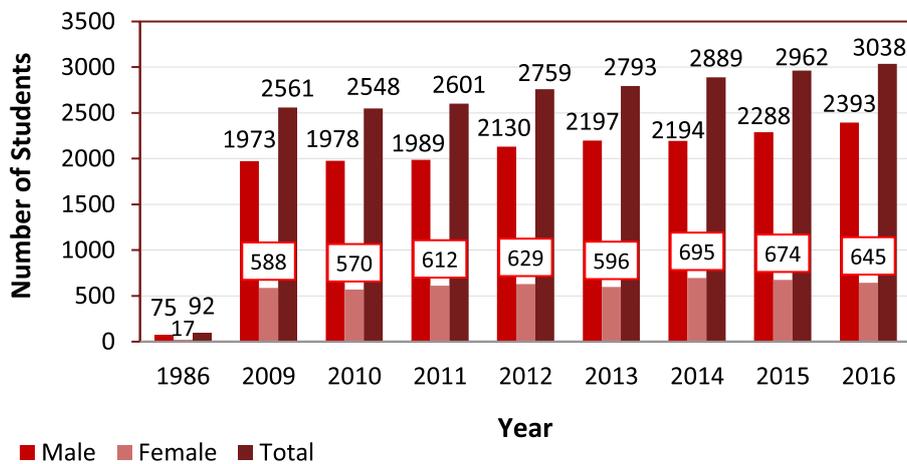


Figure A5: Undergraduate Student's Population

SUMMARY OF INDUSTRIAL TRAINING



Every year, College of Engineering provides an industrial student training for all students in their fourth year either locally in Oman or abroad. The period of the training varies from 6 to 8 weeks. Local trainings are monitored by Department advisors who make regular visits to their students. During Summer 2016, several International exchanges with a total number of 16 countries within IAESTE and 3 countries outside IAESTE were made.

Table A1: Stastics of Industrial Training, Summer 2016

Training		CAE	ECE	MIE	PCE	MCTE	Total College
Local		92	92	71	85	23	363
Abroad	IAESTE	7	11	10	10	2	40
	Other	0	0	5	2	0	7
Sub Total		99	103	86	97	25	410

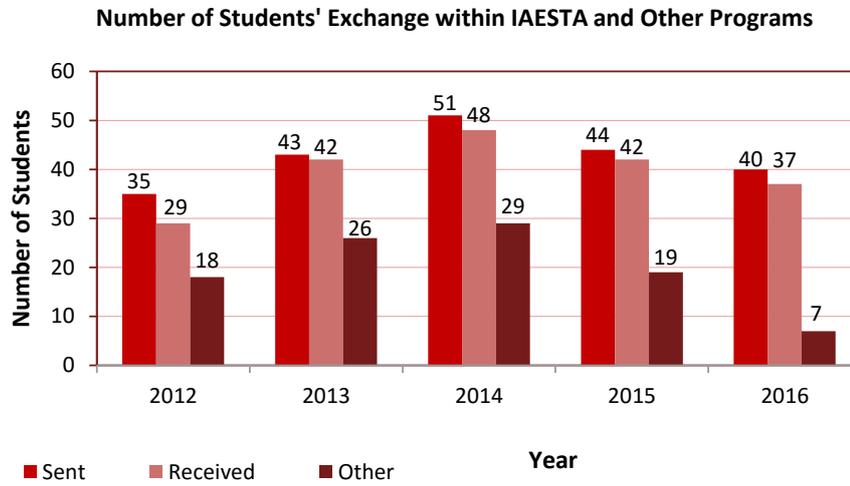


Figure A6: Students' Exchange within IAESTA and other Programs since 2012





Civil and Architectural Engineering





SUMMARY

The Department of Civil and Architectural Engineering offers two distinct undergraduate programs in Civil Engineering and Architectural Engineering. The total enrollment in the two programs at the end of Fall - 2016 was 358 students. 61 students graduated from Civil Engineering Program and 20 graduated from Architectural Engineering Program at the graduation ceremony in 2016.

In spring 2016, the Department offered 43 courses, 12 with two sections and 3 with three sections. In fall 2016, 38 courses were offered with 13 having two sections and 6 with 3 sections.

At postgraduate level, the Department offers four different programs leading to the degrees of M.Sc. in Civil Engineering, M.Sc. in Civil Engineering (Water Resources), M.Sc. in Environmental Engineering and M.Sc. in Geomatics Engineering. In 2016, 46, 10 and 19 students were admitted to the Civil Engineering, Civil Engineering (Water Resources) and Environmental Engineering programs respectively.

The Department offered 5 postgraduate courses in spring 2016, while 6 courses were offered in fall 2016. The Department also has a Ph.D. program in Civil Engineering.

The Department secured three internal research grants with total budget of 21,950 OMR and six external projects with budget of 254,190 OMR in 2016. The Department organized “Workshop on Problematic Soils” on 29 February, 2016. The Department welcomed Dr. Kazi Md Abu Sohel as Assistant Professor in August 2016.

Table B1: Summary

	2015	2016
Faculty	31	32
Technical and Administrative	14	14
Total	45	46
On-study leave	3	3
Undergraduate Program		
Enrollment	363	358
Courses offered	120	115
Graduates	106	81
Graduate		
New Enrollment	25	75
Courses offered	11	11
Thesis completed	4	5
Research		
New Grants and Contracts	5	9
Publications		
Refereed Journals	31	24
Conference Proceedings	24	18

DEPARTMENTAL PROFILE



Dr. Khalifa Al-Jabri
Professor and Head of the Department

Research Interests: Structures, Structural Dynamics, Fire Engineering,
Construction Materials



Dr. Amer Al-Rawas
Professor and Deputy Vice-Chancellor for Academic Affairs and Community Service

Research Interests: Expansive Soils, Soil Stabilization, Calcined Pozzolan Materials,
Use of By-Pass Waste Materials and Oil-Contaminated Soils



Dr. Awni Shaaban
Professor

Research Interests: Environmental Design, Sustainable Architecture, Architecture in Hot-Arid Regions



Dr. Ali Al-Harthy
Professor

Research Interests: Structural Mechanics, Reliability and Optimization, Concrete



Dr. Abdul Wahid Hago
Associate Professor

Research Interests: Pozzolanic Materials, Concrete Properties, Shear Walls, Computer Aided Design



Dr. Yahia Mohamedzein
Associate Professor

Research Interests: Soil-Structure Interaction, Expansive Soils, Earthquake Engineering and Soil Dynamics, Finite Element Analysis



Dr. Salim Al-Oraimi
Associate Professor

Research Interests: Fibre Reinforced Concrete, Fracture Mechanics, High Strength Concrete, Durability



Dr. Hossam Hassan
Associate Professor

Research Interests: Pavement Materials, Mixtures Evaluation and Design, Recycling of Waste and By-Product Materials, Environmental Effect on Pavement Performance, Maintenance and Rehabilitation of Pavements



Dr. Ali Al-Nuaimi
Associate Professor

Research Interests: Structural Design and Analysis



Dr. Mohammed Al-Aghbari
Associate Professor

Research Interests: Seepage Problems in Soil and Under Dams, Bearing Capacity of Foundations with Structural Skirts



Dr. Ahmed Sana
Associate Professor

Research Interests: Wave Boundary Layers, Turbulence, Sediment Transport, Hydroinformatics, Water Resources Management



Dr. Abdullah Al-Saidy
Associate Professor, Assistant Dean for Postgraduate Studies and Research

Research Interests: Rehabilitation of Structures, Behaviour of RC, PC and Composite Structures, Application of Advanced Fibre Composites in Civil Engineering Structures



Dr. Ranjith Perera
Associate Professor

Research Interests: Eco-Sensitive Architecture and Construction, Urban Planning and Housing Towards Low-Carbon Cities, Results Based Evaluation of Development Projects, Community-Based Urban Environmental Management, Conservation and Renewal of Urban Built-Environment



Dr. Mahad Bawaain
Associate Professor

Research Interests: Environmental Engineering, Water and Wastewater Treatment Technologies, Fluid Mechanics



Dr. Maatouk Khoukhi
Associate Professor

Research Interests: Energy Conservation in Buildings, Building Science, Solar Energy, HVAC Design, Sustainable Architecture



Dr. Issa Al-Harthy
Assistant Professor

Research Interests: Sound Characterization of Urban Environment, Survey on Community Noise, Human Behaviour in Architectural Facilities



Dr. Khalid Al-Shamsi
Assistant Professor

Research Interests: Characterization of Bituminous Materials, Pavement Design and Maintenance



Dr. Ghazi Al-Rawas
Assistant Professor, Assistant Dean for Training and Community Service

Research Interests: Remote Sensing and Geographical Information System (GIS), Hydrology



Dr. Syed Muhammad Bilal Waris Ali
Assistant Professor

Research Interests: Structural Dynamics, Fluid-Structure Interaction, Vibration Analysis, Earthquake Engineering



Dr. Sherif El-Gamal
Assistant Professor

Research Interests: Structural Engineering, Reinforced Concrete Structures, FRP Composite Materials, Structural Health Monitoring



Dr. Mahmoud Abd El-Gelil
Assistant Professor

Research Interests: Geodesy and Satellite Positioning, Geophysics, Superconducting Gravimeter Data Analysis



Dr. Mohamed Abdullah Al-Mamun
Assistant Professor

Research Interests: Renewable Energy, Wastewater Treatment, Water Quality Control and Reuse, Environmental Microbiology



Dr. Luminda Hewawasam
Assistant Professor

Research Interests: Hydrology, Climate Change, Land Use Change, Flood Analysis



Dr. Mohammed Seddik Meddah
Assistant Professor

Research Interests: Materials and Structure, Sustainable and Durable Concrete Material, Cement and Concrete Technology, Construction Materials, Use of Waste/Recycled and By-Products in Concrete and Fiber-Reinforced Concrete



Dr. Mohammed Al-Shahri
Assistant Professor

Research Interests: Engineering Surveying, Photogrammetry, Multi-Sensor Integration and Mapping



Dr. Naima Benkari
Assistant Professor

Research Interests: Contemporary Architecture and Urban Design in Arab and Islamic Countries, Built Heritage, Al Waqf and its Implementation in Regulating the Built Environment during the 19th Century, Architectural Education Systems



Dr. Saleh Al-Saadi
Assistant Professor and Coordinator of Architectural Engineering Program

Research Interests: Energy Conservation and Management in Buildings, HVAC Systems Design, Total Indoor Environmental Quality in Buildings and its Impact on Occupants, Renewable and Sustainable Energy Applications in Buildings



Dr. Chaham Alalouch
Assistant Professor

Research Interests: Sustainable Healthcare Building Design, Health and Built Environment Design, Space Syntax, Environmental Psychology, Design Evaluation and Stakeholder Engagement in the Design Process



Dr. Mohamed Saleh-eldin Saleh
Assistant Professor

Research Interests: Building Construction Technology, Architectural Design, Architecture and Culture



Dr. Kazi Md Abu Sohel
Assistant Professor

Research Interests: Steel-Concrete Composite Structures, Light-Weight Composite Structures, Dynamics of Structures



Eng. Mubarak Al-Alawi (On study leave)
Lecturer

Research Interest: Construction Management



Eng. Aliya Al-Hashmi (On study leave)
Lecturer

Research Interest: Architectural Engineering



Eng. Hanan Al-Khatri (On study leave)
Lecturer

Research Interest: Architectural Engineering



Mr. Juma Al-Ruzaiqi
Department Technical Superintendent

Research Interest: Highway



Mr. Suleiman Al-Kindi
Engineer

Research Interest: Geotechnical Engineering



Mr. Mohsen Ghanma
Engineer

Research Interest: Architectural Engineering



Mr. Yaqoub Al-Alawi
Engineer

Research Interest: Geotechnical Engineering



Mr. Jamil Al-Yaqoobi
Engineer

Research Interest: Civil Engineering



Mr. Salem Al-Ruzaiqi
Engineer

Research Interests: Surveying, Highway



Mr. Taiseer Al-Riyami
Engineer

Research Interest: Civil Engineering



Mrs. Raya Al-Sharji
Technician

Research Interest: Environmental Engineering



Mr. Nafeer Abu Alhuda
Technician

Research Interest: Hydraulics



Mr. Induka Nilupul Halwalage
Technician

Research Interest: Structural Engineering



Mr. Abdulrahman Numeiri
Engineer

Research Interest: Surveying



Mr. Osama Al-Hashemi
Engineer

Research Interests: Structures, Surveying



Mrs. Wafa Al-Nabhani
Coordinator



Mr. Said Al-Abri
Administrative Officer





DEPARTMENTAL COMMITTEES

Table B2: Departmental Committees

Accreditation Committee (Architectural Engineering Program)

Prof. Khalifa Al-Jabri (HoD)
Prof. Awni Shaaban (Coordinator)
Dr. Ranjith Perera
Dr. Naima Benkari
Dr. Maatouk Khoukhi
Dr. Chaham Alalouch
Dr. Mohammed Salah
Dr. Saleh Al-Saadi
Dr. Sherif El-Gamal

<p>Accreditation Committee (Civil Engineering Program)</p>	<p>Prof. Khalifa Al-Jabri (HoD) Dr. Ahmed Sana (Coordinator) Dr. Yahia Mohamedzein Dr. Kazi Md Abu Sohel Dr. Muhammad Bilal Waris Dr. Luminda Gunawardhana Dr. Mohamed Al Shahri Dr. Ali Al-Nuaimi Dr. Mahmoud Abd El-Gelil</p>
<p>Postgraduate Studies and Research Committee</p>	<p>Dr. Mahad Baawain (Coordinator) Dr. Khalid Al-Shamsi Dr. Mohamed Al-Aghbari Dr. Mohammed Meddah</p>
<p>Civil and Architectural Engineering Industrial Advisory Board</p>	<p>Prof. Khalifa Al-Jabri (HoD) Dr. Ahmed Sana (Coordinator) Dr. Saleh Al-Saadi Dr. Abdul Wahid Hago</p>
<p>Student-Staff Liaison Committee</p>	<p>Prof. Khalifa Al-Jabri (HoD) Dr. Mohamed Al-Shahri (Coordinator) Dr. Hossam Hassan Dr. Saleh Al-Saadi Two students from each cohort</p>
<p>Undergraduate Curriculum Committee</p>	<p>Prof. Khalifa Al-Jabri (HoD) Dr. Yahia Mohamedzein (Coordinator) Dr. Sherif El-Gamal Dr. Abdullah Al-Mamun Dr. Ali Al-Nuaimi Dr. Luminda Hewawasam Dr. Chaham Alalouch</p>

Staff-Recruitment Committee	Prof. Khalifa Al-Jabri (HoD)
	Dr. Abdul Wahid Hago (Coordinator)
	Prof. Awni Shaaban
	Dr. Hossam F. Hassan
	Dr. Mahad Baawain
Academic Promotion Committee	Dr. Ghazi Al-Rawas
	Prof. Khalifa Al-Jabri (HoD, Coordinator)
	Prof. Awni Shaaban
	Dr. Abdul Wahid Hago
	Dr. Hossam Hassan
Development and Strategic Planning Committee	Dr. Mahad Baawain
	Prof. Khalifa Al-Jabri (HoD)
	Dr. Ali Al-Nuaimi (Coordinator)
	Dr. Abdul Wahid Hago
	Dr. Mahad Baawain
	Dr. Ranjith Perera
	Dr. Khalid Al-Shamsi
Dr. Saleh Al-Saadi	
Student Advising Committee	Dr. Mohamed Al-Shahri
	Prof. Khalifa Al-Jabri (HoD)
	Dr. Chaham Alalouch (Coordinator)
	Dr. Naima Benkari
	Dr. Sherif El-Gamal
	Dr. Ahmad Sana
	Dr. Mohammed Meddah
Dr. Luminda Hewawasam	
AREN Applications (Portfolio Evaluation)	Prof. Awni Shaaban (Coordinator)
	Dr. Chaham Alalouch
	Dr. Naima Benkari
Master Degree Proposal (AREN)	Dr. Ranjith Perera (Coordinator)
	Dr. Naima Benkari
	Dr. Mohammed Salah
	Dr. Chaham Alalouch

AREN Design Courses	Dr. Ranjith Perera (Coordinator)
	Dr. Naima Benkari
	Dr. Chaham Alalouch
	Dr. Mohammed Salah
AREN FYP	Prof. Awni Shaaban (Coordinator)
	Dr. Maatouk Khoukhi (MEP)
	Dr. Sherif El-Gamal (Structure)
	Dr. Ali Al-Nuami (Construction Engineering and Management)
	Dr Chaham Alalouch (Architecture)
Seminars and Publicity	Dr Mohammed Salah (Building Construction)
	Dr. Mohamed Al-Aghbari
	Dr. Luminda Hewawasam
Social Activities	Dr. Mohammed Al-Shahri
	Mr. Said Al-Abri
IWAN	Dr. Naima Benkari (Coordinator)
	Dr. Mohammed Salah
	Eng. Mohsin Ghanma
CIVIL Research FYP	Dr. Mohammed Al-Shahri
Textbooks	Dr. Abdullah Al-Mamun
Industrial Training Reports	Dr. Mohmaed Al-Shahri
	Eng. Juma Al-Ruzaiqi
	Eng. Suliman Al-Kindi
Timetabling	Dr. Ali Al-Nuaimi
Secretary	Dr. Hossam Hassan
CAE Society Advisor	Dr. Chaham Alalouch
AREN Meeting Secretary	Dr. Mohammed Salah
Alumni and Employers' Survey (AREN)	Dr. Maatouk Khoukhi (Coordinator)
	Eng. Mohsin Ghanma
AREN Facilities	Eng. Mohsin Ghanma
Catalyst Seminars	Dr. Chaham Alalouch



UNDERGRADUATE STUDIES

Courses

Table B3: Courses Offered in Spring 2016

Code	Title	Instructor(s)
AREN2111	Architectural Design I: Basic Design	Dr. Naima Benkari
AREN2313	Architectural Graphics	Dr. Chaham Alalouch
AREN2411	History of Architecture I: Modern and Contemporary	Dr. Ranjith Perera
AREN3113	Architectural Design III: Complex Multi-Function	Dr. Chaham Alalouch
AREN3313	Architectural Working Drawing	Dr. Mohammed Salah
AREN3412	History of Architecture II: Islamic and Vernacular	Dr. Naima Benkari
AREN3812	Architectural Acoustics	Dr. Maatouk Khoukhi
AREN3814	Climate Responsive Design	Prof. Awni Shaaban
AREN3816	Building Mechanical Systems	Dr. Saleh Al Saadi
AREN4115	Graduation Project I	Dr. Saleh Al Saadi Prof. Awni Shaaban Dr. Ranjith Perera Dr. Mohammed Salah

Code	Title	Instructor(s)
AREN4818	Building Electrical Systems	Dr. Maatouk Khoukhi
AREN5403	Omani Vernacular Architecture	Dr. Naima Benkari
AREN5802	Modern Building Construction Systems	Dr. Mohammed Salah
AREN5805	Building Energy Conservation and Analysis	Dr. Saleh Al Saadi
CIVL2401	Professional Practice and Ethics	Dr. Ranjith Perera
CIVL2401	Professional Practice and Ethics	Dr. Mohammed Meddah
CIVL3036	Structures I	Dr. Sherif El-Gamal
CIVL3036	Structures I	Dr. Salim Al-Oraimi
CIVL3036	Structures I	Dr. Abdullah Al-Saidy
CIVL3046	Drawing II	Dr. Hossam Hassan
CIVL3046	Drawing II	Dr. Abdul Wahid Hago
CIVL3046	Drawing II	Dr. Mahmoud Abd El-Gelil
CIVL3066	Engineering Hydrology	Dr. Ghazi Al-Rawas
CIVL3066	Engineering Hydrology	Dr. Luminda Hewawasam
CIVL3076	Transportation Engineering	Dr. Khalid Al-Shamsi
CIVL3076	Transportation Engineering	Dr. Khalid Al-Shamsi
CIVL3086	Mechanics of Materials	Dr. Abdullah Al-Saidy
CIVL3086	Mechanics of Materials	Prof. Ali Al-Harthy
CIVL3096	Construction Materials	Dr. Mohammed Meddah
CIVL3106	Geotechnical Engineering I	Dr. Mohammed Al-Aghbari
CIVL3216	Basic Mechanics	Dr. Issa Al-Harthy
CIVL3216	Basic Mechanics	Dr. Yahia Mohamedzein
CIVL4006	Probability and Statistics for Engineers	Dr. Yahia Mohamedzein
CIVL4006	Probability and Statistics for Engineers	Dr. Mohammed Al-Shahri
CIVL4016	Structures II	Dr. Sherif El-Gamal
CIVL4016	Structures II	Dr. Salim Al-Oraimi
CIVL4046	Fluid Mechanics	Dr. Luminda Hewawasam
CIVL4046	Fluid Mechanics	Dr. Luminda Hewawasam

Code	Title	Instructor(s)
CIVL4206	Concrete Design	Dr. Ali Al-Nuaimi
CIVL4216	Steelwork Design	Dr. Muhammad Bilal Waris
CIVL5111	Global Positioning Systems and Its Applications in Civil Engineering	Dr. Mahmoud Abd El-Gelil
CIVL5133	Soil Improvement	Dr. Mohammed Al-Aghbari
CIVL5160	Geographic Information Systems in Water Resources	Dr. Ghazi Al-Rawas
CIVL5186	Water Supply and Wastewater Treatment	Dr. Mohamed Al-Mamun
CIVL5204	Engineering Economics	Dr. Mohammed Meddah
CIVL5204	Engineering Economics	Dr. Mohammed Meddah
CIVL5270	Introduction to Fire Safety Design in Buildings	Prof. Khalifa Al-Jabri
CIVL5326	Environmental Engineering II	Dr. Mohamed Al-Mamun
CIVL5462	Cementitious Materials and Concrete Technology	Dr. Mohammed Meddah
CIVL5600	Introduction to Photogrammetry	Dr. Mohammed Al-Shahri
CIVL5678	Administration of Contracts	Dr. Ali Al-Nuaimi
CIVL5994	Research Project II	Dr. Mohammed Al-Shahri
CIVL5996	Project II	Dr. Abdul Wahid Hago
CIVL5996	Project II	Dr. Hossam Hassan
CIVL5996	Project II	Dr. Ahmad Sana

Table B4: Courses Offered in Fall 2016

Code	Title	Instructor(s)
AREN2312	Architectural Drawing	Prof. Awni Shaaban
AREN3112	Architectural Design II: Simple Function	Dr. Naima Benkari
AREN3211	Architectural Design Theory	Dr. Naima Benkari
AREN3312	Introduction to Computer Aided Architectural Design	Dr. Chaham Alalouch
AREN3811	Building Construction Methods and Details	Dr. Mohammed Salah

Code	Title	Instructor(s)
AREN3815	Sustainable Design in Hot Climates	Prof. Awni Shaaban
AREN4114	Architectural Design IV: Design in an Urban Context	Dr. Ranjith Perera
AREN4205	Residential Planning and Design	Dr. Ranjith Perera
AREN4306	Spatial Analysis Techniques	Dr. Chaham Alalouch
AREN4813	Building Illumination	Dr. Saleh Al Saadi
AREN4817	Sanitary and Plumbing Design	Dr. Maatouk Khoukhi
AREN5116	Graduation Project II	Dr. Saleh Al Saadi Dr. Maatouk Khoukhi Dr. Sherif El-Gamal Dr. Mohammed Salah
AREN5819	Specifications and Quantities	Dr. Mohammed Salah
CIVL2401	Professional Practice and Ethics	Dr. Ranjith Perera
CIVL3002	Drawing I	Dr. Issa Al-Harthy
CIVL3002	Drawing I	Dr. Issa Al-Harthy
CIVL3002	Drawing I	Dr. Issa Al-Harthy
CIVL3036	Structures I	Dr. Kazi Md Abu Sohel
CIVL3056	Surveying	Dr. Ghazi Al-Rawas
CIVL3056	Surveying	Dr. Mahmoud Abd El-Gelil
CIVL3056	Surveying	Dr. Mahmoud Abd El-Gelil
CIVL3086	Mechanics of Materials	Prof. Khalifa Al-Jabri
CIVL3086	Mechanics of Materials	Dr. Kazi Md Abu Sohel
CIVL3086	Mechanics of Materials	Prof. Ali Al-Harthy
CIVL3096	Construction Materials	Dr. Salim Al-Oraimi
CIVL3096	Construction Materials	Dr. Salim Al-Oraimi
CIVL3106	Geotechnical Engineering I	Dr. Yahia Mohamedzein
CIVL3216	Basic Mechanics	Dr. Abdul Wahid Hago
CIVL4036	Highway Engineering	Dr. Khalid Al-Shamsi
CIVL4036	Highway Engineering	Dr. Khalid Al-Shamsi

Code	Title	Instructor(s)
CIVL4136	Environmental Engineering I	Dr. Mohamed Al-Mamun
CIVL4136	Environmental Engineering I	Dr. Mahad Baawain
CIVL4136	Environmental Engineering I	Dr. Mohamed Al-Mamun
CIVL4146	Hydraulics	Dr. Ahmad Sana
CIVL4146	Hydraulics	Dr. Luminda Hewawasam
CIVL4146	Hydraulics	Dr. Luminda Hewawasam
CIVL4206	Concrete Design	Dr. Ali Al-Nuaimi
CIVL4206	Concrete Design	Dr. Sherif El-Gamal
CIVL4216	Steelwork Design	Dr. Muhammad Bilal Waris
CIVL4216	Steelwork Design	Dr. Muhammad Bilal Waris
CIVL4226	Foundation Engineering	Dr. Mohammed Al-Aghbari
CIVL4226	Foundation Engineering	Dr. Yahia Mohamedzein
CIVL5096	Concrete Structures	Dr. Ali Al-Nuaimi
CIVL5106	Slope Stability	Dr. Mohammed Al-Aghbari
CIVL5146	Numerical Methods in Engineering	Dr. Mohammed Al-Shahri
CIVL5146	Numerical Methods in Engineering	Dr. Mohammed Al-Shahri
CIVL5156	Estimating Construction Cost	Dr. Ali Al-Nuaimi
CIVL5226	Airport Design	Dr. Hossam Hassan
CIVL5336	Construction Management	Dr. Mohammed Meddah
CIVL5336	Construction Management	Dr. Mohammed Meddah
CIVL5993	Research Project I	Dr. Mohammed Al-Shahri
CIVL5995	Project I	Dr. Abdul Wahid Hago
CIVL5995	Project I	Dr. Hossam Hassan
CIVL5995	Project I	Dr. Ahmad Sana

POSTGRADUATE STUDIES

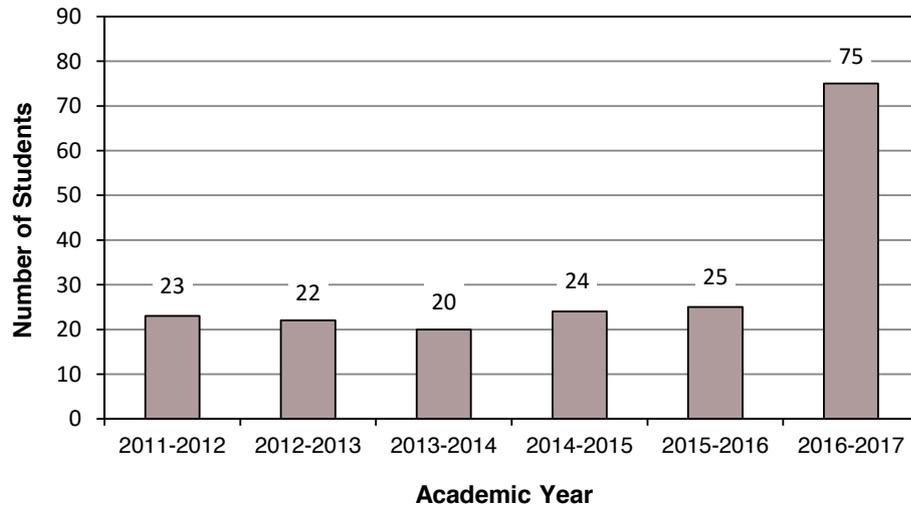


Figure B1: Postgraduate Students' Enrolment for the Past Six Years

Courses

Table B5: Postgraduate Courses Offered in Year 2016

Semester	Code	Title	Instructor(s)
Spring 2016	CIVL6110	Advanced Concrete Structures	Dr. Ali Al-Nuaimi
	CIVL6150	Finite Element Method	Dr. Muhammad Bilal Waris
	CIVL6380	Geoenvironmental Engineering	Dr. Yahia Mohamedzein
	CIVL6760	Solid Waste Management	Dr. Mahad Baawain
	CIVL6785	Municipal Distribution and Collection Systems	Dr. Ahmad Sana
Fall 2016	CIVL6135	Advanced Concrete Technology	Dr. Mohammed Meddah
	CIVL6160	Advanced Steel Design	Dr. Abdullah Al-Saidy
	CIVL6715	Chemistry and Microbiology of Water and Wastewater	Dr. Mohamed Al-Mamun
	CIVL6750	Air Pollution Engineering	Dr. Mahad Baawain
	CIVL6925	Groundwater Hydraulics	Dr. Luminda Hewawasam
	CIVL6135	Advanced Concrete Technology	Dr. Mohammed Meddah

Postgraduate Students' Projects

Table B6: Students' Projects in Year 2016

No	Student Name	Project Title
1	Ammar Awad Mohammed	Experimental and Numerical Modeling of the Scour Effects on the Laterally Loaded Piles in Sand.
2	Balqees Al-Ajmi	Comparison between Conventional Activated Sludge (CAS) and Membrane Bio-Reactor (MBR) Process for Characterization of MBR Fouling for Municipal Wastewater Treatment.
3	Bushra Al-Abri	Investigation of the Rainfall- Runoff Relationships for Wadi Dayqah Catchment.
4	Muna Nasser Al-Hatmi	Causes, Effects and Remedies of Cost Overrun in Construction Projects in Oman.
5	Othman Al-Shareedah	Performance Evaluation of Axially Loaded Circular GFRP-Reinforced Concrete Columns.

RESEARCH



Grants and Contracts

Table B7: New Grants, Contracts and Consultancies by Faculty Members in Year 2016

Research Title	Principal Investigator	Budget (OMR)	Funded by
Study of cracking in Soad Bahwan Buildings	Dr. Abdul Wahid Hago	30,000	Muscat Appealing Court
Application of Sustainable Risk-Based Approaches Assessment and Remediation of Contaminated and Groundwater Event	Dr. Mahad Baawain	4,500	Shell Development Oman
Assessment of Sustainable Remediation Options for Contaminated Soil Stockpiles (Phase 2: Monitoring of Groundwater below Vulnerable Contaminated Sites)	Dr. Mahad Baawain	30,500	PDO
Characterization Modelling of Iron Ore Particles “Case Study from Vale”	Dr. Mahad Baawain	17,800	Vale Company
Energy Audit to Identify Energy-Efficient Retrofitting Opportunities in Residential Buildings	Dr. Saleh Al-Saadi	8,500	SQU

Research Title	Principal Investigator	Budget (OMR)	Funded by
Gravity Data and Earth Deep Interior Dynamics After Strong Earthquakes	Dr. Mahmoud Abd El-Gelil	7,075	SQU
Second National Communication (SNC) and Biennial Update Report for the Sultanate of Oman (BUR)	Dr. Ghazi Al-Rawas	15,830	UNEP Regional Office for West Asia (UNEP/ROWA)
Tensile, Shear, and Bond Properties of Newly Developed Glass Fibre Reinforced Polymer (GFRP) Bars	Dr. Sherif El-Gamal	13,088	Pultron Composites Fast
Trend Between the Renewal Rate of the Aquifer and the Extreme Climate Events	Dr. Luminda Hewawasam	6,375	SQU

Publications

Refereed Journal Papers

1. Abbasi, A., Alalouch, C. and Bramley, G. 2016. Open Space Quality in Deprived Urban Areas: User Perspective and Use Pattern. *Procedia-Social and Behavioral Sciences*, 216:194-205.
2. Alalouch, C., Aspinall, P. and Smith, H. 2016. Design Criteria for Privacy-Sensitive Healthcare Buildings. *International Journal of Engineering and Technology*, 8(1):32-39.
3. Alalouch, C., Saleh, M.S. and Al-Saadi, S. 2016. Energy-Efficient House in the GCC Region. *Procedia-Social and Behavioral Sciences*, 216:736-743.
4. Al-Mamun, A., Lefebvre, O., Baawain, M.S. and Ng, H.Y. 2016. A Sandwiched Denitrifying Biocathode in a Microbial Fuel Cell for Electricity Generation and Waste Minimization. *International Journal Environmental Science and Technology*, 13(4):1055-1064.
5. Al-Muhtaseb, A.H., Jamil, F., Al-Haj, L., Al-Hinai, M.A., Baawain, M.S., Myint, M.T.Z. and Rooney, D. 2016. Efficient Utilization of Waste Date Pits for the Synthesis of Green Diesel and Jet Fuel Fractions. *Energy Conversion and Management*, 127:226-232.

6. Al-Muhtaseb, A.H., Jamil, F., Baawain, M.S., Al-Hinai, M., Zeaiter, J. and Ahmad, M.N. 2016. Bio-Oil Upgrading by Catalytic Cracking over Different Solid Catalysts. *Journal of Advanced Catalysis Science and Technology*, 3(1):12-19.
7. Choudri, B.S. and Baawain, M.S. 2016. Effects of Pollution on Freshwater Organisms. *Water Environment Research*, 88(10):1672-1692.
8. Choudri, B.S. and Baawain, M.S. 2016. Radioactive Wastes. *Water Environment Research*, 88(10):1486-1503.
9. Choudri, B.S. and Baawain, M.S. 2016. Sustainable Bioenergy from Biofuel Residues and Wastes. *Water Environment Research*, 88(10):1446-1466.
10. Choudri, B.S. and Baawain, M.S. 2016. Textile. *Water Environment Research*, 88(10):1433-1445.
11. Choudri, B.S., Baawain, M.S., Al-Sidairi, A., Al-Nadabi, H. and Al-Zeidi, K. 2016. A Study of Beach Use and Perceptions of People towards Better Management in Oman. *Indian Journal of Geo-Marine Sciences*, 45(10):1327-1333.
12. Choudri, B.S., Baawain, M.S., Al-Sidairi, A., Al-Nadabi, H. and Al-Zeidi, K. 2016. Perception, Knowledge and Attitude towards Environmental Issues and Management among Residents of Al-Suwaiq Wilayat, Sultanate of Oman. *The International Journal of Sustainable Development and World Ecology*, 23(5):433-440.
13. Choudri, B.S., Baawain, M.S. and Ahmed, A. 2016. An Overview of Coastal and Marine Resources and their Management in Sultanate of Oman. *Journal of Environmental Management and Tourism*, 7(1):21-32.
14. El-Gamal, S. Al-Nuaimi, A., Al-Saidy, A. and A. Al-Lawati, A. 2016. Efficiency of Near Surface Mounted Technique Using Fiber Reinforced Polymers for the Flexural Strengthening of RC Beams. *Construction and Building Materials Journal*, 118:52-62.
15. Gunawardhana, L.N. and Al-Rawas, G.A. 2016. A Comparison of Trends in Extreme Rainfall Using 20 Years Data in Three Major Cities in Oman. *The Journal of Engineering Research*, 13:137-148.
16. Khoukhi, M., Fezzioui, N., Draoui, B. and Salah, L. 2016. The Impact of Thermal Conductivity of Polystyrene Insulation Material Change under Different Operating Temperatures on the Heat Transfer through the Building Envelope. *Applied Thermal Engineering*, 105:669-674.
17. Kwarteng, A.Y., Al-Hatrushi, S.M., Illenberger, W.K., McLachlan A., Sana, A., Al-Buloushi, A.S. and Hamed, K.H. 2016. Beach erosion along Al Batinah coast, Sultanate of Oman, *Arabian Journal of Geosciences*, 9:85-104.
18. Mohamedzein, Y.E., Al-Hashmi, S.M. and Al-Rawas, A.A. 2016. Investigation of Excessive Seepage from Al-Fulaij Recharge Dam, Oman. *The Journal of Engineering Research*, 13(2):124-136.

19. Mohamedzein, Y.E. and Al-Aghbari, M.Y. 2016. Experimental Study of the Performance of Plastic Pipes Buried in Dune Soil. *International Journal of Geotechnical Engineering*, 10(3):236-245.
20. Mohamedzein, Y.E., Al-Ghaithi, A., Al-Aghbari, M. and Tabook, B. 2016. Assessment of Dune Sand-Bentonite Mixtures for Use as Landfill Liners. *Journal of Solid Waste Technology and Management*, 42(1):25-34.
21. Purnama, A., Baawain, M.S. and Shao, D. 2016. Simulation of Sediment Discharges during an Outfall Dredging Operation. *International Journal of Oceanography*, 2016:1-10.
22. Soyong, P. and Perera, R. 2016. Spatial Analysis of the Environmental Conflict Between State, Society and Industry at the Map ta Phut-Rayong Conurbation in Thailand. *Environment, Development and Sustainability*, 18(2):1-24
23. Srichue, S., Nitivattananon, V. and Perera, R. 2016. Aging Society in Bangkok and the Factors Affecting Mobility of Elderly in Urban Public Spaces and Transportation Facilities. *IATSS Research*, 40(1):26-34.
24. Waris, M.B., Ali, N. and Al-Jabri, K.S. 2016. Use of Recycled Tire in Concrete for Partial Aggregate Replacement. *International Journal of Structural and Civil Engineering Research*, 5(4):273-276.

Conference Proceedings

1. Abd El-Gelil, M. and Al-Shahri, M. 2016. Observation of Earth Free Oscillation Modes Using Cross Least Squares Wavelet Method. In: *Proceedings of International Symposium on the Geodynamics and Earth Tide. Intelligent Earth System Sensing, Scientific Enquiry and Discovery*, Trieste, Italy, 5-9 June 2016.
2. Abd El-Gelil, M., Ghaderpour, E. and Pagiatakis, S. 2016. The Potential of the Cross Least Squares Wavelet Analysis for Estimating the Time-Frequency Transfer Function of Atmospheric Variations Effect of Superconducting Gravity Data. In: *Proceedings of International Symposium on the Geodynamics and Earth Tide. Intelligent Earth System Sensing, Scientific Enquiry and Discovery*, Trieste, Italy, 5-9 June, 2016.
3. Al-Muhtaseb, A., Jamil, F., Baawain, M.S., Al-Hinai, M. and Abu-Jrai, A. 2016. Synthesis of Mesoporous Carbon Material from Waste "Date Seeds" and its Application for "Tertiary Butylation" of Phenol. In: *Proceedings of the 3rd International Conference on Water, Waste and Energy Management*, Rome, Italy, 18-20 July, 2016.
4. Al-Shahri, M. 2016. Linear Feature Matching Using Wavelet Transformation. In: *Proceedings of WG III/1 - Orientation and Surface Reconstruction, XXIII ISPRS Congress*, Prague, Czech Republic, 12-19 July, 2016.
5. Baawain, M.S. and Purnama, A. 2016. Modeling of Return Seawater Outfall from an Industrial Port in Oman. In: *Proceedings of the 12th International Conference on Coasts, Ports & Marine Structures (ICOPMAS 2016)*, Tehran, Iran, 31 October 2- Novemebr, 2016.

6. Chitrakar, P. Sana, A. and Baawain, M.S. 2016. The Hydrodynamic of Sea of Oman and Arabian Gulf. In: *Proceedings of the 3rd International Conference on Coastal Zone Engineering & Management in the Middle East*, Dubai, UAE, 20-24 November, 2016.
7. Elsharief, A., Mohamedzein, Y. and Saad, S. 2016. Effects of Wetting on the Shear Strength of Plastic Silty Sands. In: *Proceedings of 4th GeoChina International Conference*, Jinan, China, 25-27 July, 2016.
8. Gunawardhana, L.N., Al-Rawas, G.A. and Kazama, S. 2016. Assessment of Wadi-Flow Variations Attributed to Climate Change in Muscat, Oman. In: *Proceedings of the 20th Congress of the Asia Pacific Division of the International Association for Hydro Environment Engineering and Research (IAHR APD 2016)*. Colombo, Srilanka, 28-31 August 2016.
9. Hassan, H. and Al-Jabri, K. 2016. ABET Accreditation: An Engineering Experience from Sultan Qaboos University, Oman. In: *Proceeding of 2nd International Conference on Higher Education Advances (HEAd'16)*, Valencia, Spain, 21-23 June, 2016.
10. Al-Jabri, K.S., Hago, A., Hassan, H.F. and Mohamedzein, Y. 2016. Methods to Control Cracking in Mass Concrete for Bridge Abutments. In: *Proceedings of ACI-KC 4th International Conference and Exhibition- Smart, Green and Durable Concrete Structures*, Kuwait City, Kuwait, 8-10 November, 2016.
11. Khoukhi, M. 2016. Change of the Thermal Conductivity of Polystyrene Insulation in Term of Temperature at the Mid Thickness of the Insulation Material: Impact on the Cooling Load. In: *Proceedings of 18th International Conference on Mechanical Engineering*, Montreal, Canada, 16-17 May 2016.
12. Khoukhi, M. 2016. Effect of Operating Temperature and Moisture Content on the Thermal Conductivity of Building Insulation Material. In: *Proceedings of 6th International Conference on Energy Research and Development*, Kuwait City, Kuwait, 14-16 March, 2016.
13. Meddah, M.S., Al-Jabri, K., Hago, A.W. and Al Hinai, A. 2016. Development of Pervious Concrete Using Local Materials for a Sustainable Drainage Solution. In: *Proceedings of the Central Europe Towards Sustainable Building 2016, Innovations for sustainable future*, Prague, Czech Republic, 22-24 June 2016.
14. Meddah, M.S., Al-Shehhi, H and Al-Bulushi, S. 2016. Effect of Window Waste Glass as Substitute of Natural Sand on Concrete Performance. In: *Proceedings of the 6th Amazon Pacific Green Materials Congress and Sustainable Construction Materials LAT-RILEM Conference, Sustainable Materials for a Living World*, Cali-Colombia, 27-29 April, 2016.
15. Meddah, M.S., Al-Shehhi, H and Al-Bulushi, S. 2016. Use of Waste Window Glass as Substitute of Natural Sand in Concrete Production. In: *Proceedings of the International Conference on Recent Trends in Engineering and Material Sciences-(ICEMS-2016)*, Jaipur, India, 17-19 March, 2016.

16. Mohamedzein, Y. and Al-Aghbari, M. 2016. The Performance of Strip Footing Resting on Geogrid-Reinforced Dune Sand. In: *Proceedings of 4th GeoChina International Conference*, Jinan, China, 25-27 July, 2016.
17. Nur Eldayem, F. and Mohamedzein, Y. 2016. Finite Element Analysis of Laterally Loaded Piles in Clays. In: *Proceedings of 4th GeoChina International Conference*, Jinan, China, 25-27 July, 2016.
18. Shaaban, A. 2016. Future Sustainability/Case Study SQU Eco-House. In: *Proceedings of Austria Showcase, Green Building and Smart City Symposium*, Muscat, Oman, 01 March, 2016.

Book Chapters

1. Shaaban, A.K. and Khudhayer, W. 2016. Responding to Environmental Constraints for Sustainable Urban Space in Muscat Region. In: Nebel, S. and Richthofen, A. (Eds.). *Urban Oman - Trends and Perspectives of Urbanization in Muscat Capital Area*, LIT Verlag, pp 195-210.

Technical Reports

1. Alalouch, C. 2016. *SQU Eco-House Competition: Research & Development Plan*. Submitted to: The Research Council (TRC).
2. Al-Badi, A., Al-Abri, R., Masoud, M., AlBadi, M., Al-Hinai, N., Piya, S., Hassan, H., Alalouch, C. and Al-Nuaimi, A. 2016. *An Inception Report on SQU Streetcar*. Submitted to: Vice Chancellor Office, Sultan Qaboos University.
3. Al-Badi, A., Al-Rawahi, N., Hosseinzadah, N., Al-Azri, N., Rudyk, S., Malik, A., Albadi, M., Al-Saadi, S., Denman, C. and Nandagopal, S. 2016. *Sustainable Energy Research Center*. Submitted to: Vice Chancellor Office, Sultan Qaboos University.
4. Al-Mamun, A. and Baawain, M.S. 2016. *Waste to Watts: Green and Sustainable Electricity generation from Wastewater Using Bacteria in Microbial Fuel Cell*. First Phase Report Submitted to: Sultan Qaboos University.
5. Al-Saidy, A.H. and El-Medaawy, T. 2016. *Composite Rebars for Reinforcing Concrete Structures in Regions of Severe Environment*. Final Report, Submitted to: Sultan Qaboos University.
6. Baawain, M.S., Sana, A., Zain, Y. and Choudri, B.S. 2016. *Assessment of Sustainable Remediation Options for Contaminated Soil Stockpiles (Phase 1: Characterization of the Contamination Level)*. Final Report, Submitted to: Petroleum Development of Oman, Sultanate of Oman.
7. Benkari, N. 2016. *Desk Study Report for the Nomination of a (Undisclosed) Site on the UNESCO List of Human Heritage*. Submitted to: the Advisory and Monitoring Unit ICOMOS.

8. Benkari, N. 2016. *Report of the Inspection Visit of the Kofun Sites in the Kansai Region*. Submitted to: the Municipality of Osaka and ICOMOS Japan.
9. Khoukhi, M. 2016. *Investigation of the Impact of Temperature and Moisture Contents on Building Insulation Materials*. Final Report, Submitted to: Sultan Qaboos University.
10. Meddah, M.S. 2016. *Development of Pervious Concrete Using Local and Recycled Omani Materials for a Sustainable Drainage Solution and Insulation Applications*. Progress Report, Submitted to: Sultan Qaboos University.
11. Al-Azri, N., Al-Kharousi, S., Al-Kharousi, F., Al-Kindi, M., Al-Zedjali, S. and Al-Saadi, S. 2016. *The Committee for Reviewing Electricity, Water and Telephone Utility Consumption*. Final Report, Submitted to: Sultan Qaboos University.
12. Pagiatakis, S., Lasagna, P. and Abd El-Gelil, M. 2016. *Establishment of the National Geoid Model for the Sultanate of Oman (ONGM)*. Final Report, Submitted to: Ministry of Defense, Sultanate of Oman.
13. Al-Saadi, S. 2016. *Comfort Final Report for Oman Eco-House Project Phase-2*. Final Report, Submitted to: The Research Council (TRC).
14. Shaaban, A.K. 2016. *Eco-House Landscape Final Report, Competition-2, Stage-1 Deliverables*. Final Report, Submitted to: The Research Council (TRC).
15. Shaaban, A.K. 2016. *As-Built Eco-House Working Drawings, Eco-House Competition-2, Stage-1 Deliverables*. Final Report, Submitted to: The Research Council (TRC).
16. Shaaban, A.K. 2016. *As-Built Eco-House Research & Development, Eco-House Competition-2, Stage-1 Deliverables*, Final Report, Submitted to: The Research Council (TRC).
17. Shaaban, A.K. 2016. *Environmental Performance of Double-Shell System of Eco-House at SQU, Eco-House Competition-2, Stage-1*. Progress Report, Submitted to: The Research Council (TRC).
18. Shaaban, A.K. 2016. *Impact of Sustainable Landscape on Environmental Performance of Eco-House at SQU, Eco-House Competition-2*, Progress Report, Submitted to: The Research Council (TRC).



OTHER ACTIVITIES

Seminars/Short Courses

1. Al-Harthy, A. 2016. Faculty Orientation to SQU Academic Program Review, Sultan Qaboos University, 5 October, 2016.
2. Al-Saadi, S. 2016. Green Nursing: Energy Conservation Measures. College of Nursing, Sultan Qaboos University, 31 March 2016.
3. Al-Saadi, S. 2016. Impact of Façade Systems on Energy Consumption of Buildings. WINDOREX + Glass & Aluminum Oman, Oman International Exhibition Center, Muscat, 17 May, 2016.
4. Baawain, M.S. 2016. Environmental Sampling for Air, Water & Land Contamination. Ministry of Environment and Climate Affairs, Muscat, 30 March, 2016.
5. Baawain, M.S. 2016. Treated Wastewater Sampling Techniques: Field Sampling. Ministry of Environment and Climate Affairs, Muscat, 30 May, 2016.
6. Benkari, N. 2016. Research Methodology for PhD Studies in Architecture and Urban Planning. Department of Architecture and Earth Science, University Ferhat Abbas, Setif, Algeria, 17-18 February 2016.
7. Perera, R. 2016. Heritage of Water Based Settlements in Thailand. International Council on Monuments and Sites - Sri Lanka Chapter, August 5, 2016.

8. Perera, R. 2016. Social Implications of Buildings, Sri Lanka Institute of Information Technology, Malabe, 15-17 August, 2016.
9. Saleh, M.S. 2016. The Future of Sustainability in Design, Engineering and Construction in Oman, Windorex, Glass & Aluminum Exhibition, Oman International Exhibition Center, Muscat, 16 May, 2016.

Conferences/Workshops

1. Workshop on Problematic Soils and Ground Improvement, 28-29 February 2016.

Invited Talk/Guest Speaker

1. Alalouch, C. 2016. Digital Simulation of Spatial Configurations: The Socio-Economical Dimension of Urban and Building Design. Oman Centre of Architects (OCA), Sultan Qaboos Grand Mosque, Muscat, 19 April 2016.
2. Alalouch, C. 2016. Eco-Architecture in the Gulf Region. The Scientific Colleges of Design (SCD) Multi-Theme Design Conference, Muscat, 30 November, 2016.
3. Al-Jabri, K. 2016. Development of a New Soil-Cement Block using Produced Water from Oil Fields: A Preliminary Study. 6th International Conference on Geotechnique, Construction Materials and Environment (Geomate 2016), Bangkok, 15 November 2016.
4. Al-Jabri, K. 2016. Methods to Control Cracking in Mass Concrete for Bridge Abutments, ACI-KC, 4th International Conference and Exhibition, Kuwait, 7 November, 2016.
5. Al-Jabri, K. 2016. Studies on the Utilization of Industrial By-Products in the Construction Industry. 1st International Conference on Science and Technology, Ankara, 4 October 2016.
6. Al-Rawas, G.A. 2016. Climate Change and Extreme Events Modeling in Arid Regions. Future Drainage & Stormwater Networks Dubai, Dhabi, 26-27 October, 2016.
7. Al-Rawas, G.A. 2016. Extreme Events and Flash Flood Modeling in Arid Regions. Future Drainage and Stormwater Networks, Abu Dhabi Municipality, UAE, 10-11 February, 2016.
8. Al-Saadi, S. 2016. Rational for Sustainable Buildings in Oman. Oman Waste Management & Environmental Services Exhibition & Conference, 23-25 May 2016.

9. Baawain, M.S. 2016. Inside Stories - The Circular Economy. Panel discussion organized by Public Authority for Investment Promotion and Export Development, Muscat, 28 September, 2016.
10. Baawain, M.S. 2016. Removal of Toxic Organic Pollutants and By-Products Using Advanced Oxidation Processes and Nanotechnology. Annual Research Forum of The Research Council (TRC), Muscat, 5 October, 2016.
11. Baawain, M.S. 2016. Ultimate Composition of Municipal Solid Waste in Oman. A Presentation in Oman Waste Management & Environmental Services (Exhibition & Conference), Muscat, 23-24 May, 2016.
12. Benkari, N. 2016. Les formes contemporaines de l'architecture Islamique. L'architecture Islamique: Histoire et pratiques architecturales Conference, Constantine, 15-16 February 2016. (Presented in French)
13. Meddah, M.S. 2016. Recycled Aggregates in Concrete Production: Engineering Properties and Environmental Impact. Sriwijaya International Conference on Engineering, Science & Technology (SICEST 2016), Palembang, Bangka Island, 9-10 November, 2016.
14. Perera, R. 2016. Design of Food Facilities, Department of Food Science & Nutrition, College of Agriculture & Marine Sciences, Sultan Qaboos University, 27 April, 2016.
15. Shaaban, A. 2016. SQU Eco-House Project. Windorex, Glass & Aluminum Exhibition, Muscat, 16 May, 2016.

Cooperation with Local and Foreign Organizations

1. Al-Harthy, A. The National Authority for Qualifications & Quality Assurance of Education & Training in Bahrain, 4-7 April 2016.
2. Al-Rawas, G.A. Marina Engineering Consultants, 3 May, 2016.
3. Al-Rawas, G.A. Abu Dhabi Municipality, UAE, 10-11 February, 2016.
4. Al-Rawas, G.A. Technology and Innovation Partnership-STIP Scientific Council, European Union (EU) and the GCC countries, 7 September 2015-Present.
5. Al-Rawas, G.A. Department of Civil and Environmental Engineering, Massachusetts Institute of Technology (MIT), Boston, USA, 25 March, 2016.
6. Al-Rawas, G.A. Department of Civil & Environmental Engineering, Boston University, USA, 23 March, 2016.

Students' Activities (Workshops, Short Training Courses and Competitions)

The Society of Civil and Architectural Engineering (CAES) is an active society in the College of Engineering at Sultan Qaboos University. CAES enables collaboration, knowledge sharing and skill development across Civil and Architectural Engineering disciplines. The Society serves to enhance students' self-assurance and passion for their discipline through exhibitions, seminars and competitions. The society also organizes short courses on certain topics regularly that serve to improve the professional development of the students. The society organized the following events in 2016.

1. 3D MAX Workshop (08 February 2016)
2. Adobe Photoshop Workshop (15 February 2016)
3. How To Build Workshop (10 March 2016)
4. Civil Engineering and Architecture Exhibition (14 March 16 - 2016 March 2016)
5. Farewell Ceremony (12 May 2016)
6. The Welcoming Ceremony (15 September 2016)
7. Opening Ceremony (20 September 2016)
8. ICE Lecture (27 September 2016)
9. AutoCAD Workshop (02 November 2016)
10. Civil Engineering and Architecture Gathering (07 November 2016)
11. Workshop on Architecture Photography (17 November 2016)
12. National Day Celebration (20 November 2016)







Electrical and Computer Engineering



SUMMARY

The Department of Electrical and Computer Engineering (ECE) is the largest department in the College of Engineering and offers B.Sc, M.Sc, and Ph.D degrees in Electrical and Computer Engineering. The Department provides students with a comprehensive electrical and computer engineering background including four specialized tracks: *Communication and Signal Processing (CSP)*; *Computer Systems and Networks (CSN)*; *Electronic Instrumentation and Control (EIC)* and *Power Systems and Energy (PSE)*. A new specialization track in the area of Biomedical Engineering is currently under development. The Department also collaborates with the Department of Mechanical and Industrial Engineering in offering a jointly B.Sc degree in Mechatronics Engineering.

The undergraduate programs offered by the Department of Electrical and Computer Engineering are designed to provide a sound education with solid foundation in basic sciences and electrical engineering. Engineering design concepts are introduced early in the curriculum, with hands-on activities being enriched through required instructional laboratories. The programs impart a broad awareness of social, cultural, and ethical issues together with a good understanding of the role of engineers in the community, leading to an internationally recognized degree. The programs offered by the Department have been developed based on the criteria and recommendations of the Accreditation Board for Engineering and Technology (ABET). As a result, the undergraduate programs are ABET accredited.

The ECE faculty conducts research in various areas including communication systems, computer architectures and networks, control systems, electrical power systems, renewable energy, microgrids, smart grid, electronic



instrumentation, network security, wireless communications, high-voltage, power electronics, embedded systems, PLC, SCADA, robotics, signal processing, biomedical signals and devices, etc.

The research laboratories at the ECE Department are available for undergraduate as well as postgraduate students. The graduate programs allow students to deepen their professional knowledge, and enhance their communication and hands-on skills.

Being the recipient of several internal and external research grants and contracts in collaboration with local industries and organizations, the Department is a masthead of excellence in the College of Engineering. As a matter of fact, the faculty publications included 25 refereed journal articles, 3 book chapters, 20 full conference proceedings papers, 4 technical reports, and 11 research grants. During the year, ECE faculty offered many professional short courses and invited talks, organized and delivered several training workshops and seminars. During this year, Dr. Abdulsalam Elhaffar joined the Department as an Assistant Professor after being a visiting consultant in the Power Systems and Energy track. Recently, Dr. Mohamed Al-Badi was on a Sabbatical leave starting from September 2016.

ECE students along with the Department staff are the backbone of our department's achievements and are also engaged in academic and professional activities. The IEEE Students Society Branch in the Department regularly organizes workshops and activities for the benefit of students and undertakes students' projects which have won the Department acclaim in international student gatherings.



Table C1: Summary

	2015	2016
Faculty	39	37
Support staff	16	16
Total	55	53
On-study leave	3	2
Undergraduate Program		
Enrollment	428	446
Courses offered	131	130
Graduates	119	91
Graduate Program		
Enrollment	29	22
Courses offered	19	16
Graduates	13	8
Research		
Grants	4	11
Publications		
Refereed Journals	43	25
Conference Proceedings	50	20



DEPARTMENTAL PROFILE



Dr. Nasser Hosseinzadeh
Associate Professor, Head of the Department

Research Interests: Electrical Power Systems, Smart Grid, Microgrids, Power Systems Stability, Engineering Education



Dr. Abdullah Al-Badi
Professor, Dean of the College of Engineering

Research Interests: Renewable Energy Systems, Electrical Machines, Drives, Power Electronics, Power Quality, Interference and High Voltage



Dr. Hadj Bourdoucen
Professor, Director of the Communication and Information Research Centre

Research Interests: Intelligent Instrumentation, QoS in Cellular Systems, FOSS Deployment, ICT, Integrated Electronics and REs



Dr. Abdulnasir Hossen
Professor

Research Interests: Digital Signal Processing, Biomedical Signal Processing, Digital Communication, Artificial Intelligence, Neural Networks



Dr. Ibrahim Metwally
Professor

Research Interests: Electromagnetic Fields, Coronas, Transients in Power Systems, Power Quality, Overvoltage Protection, Gas-Insulated Switchgear and Lines, Stray-Current Corrosion



Dr. Afaq Ahmad
Professor

Research Interests: Digital System Design and Test, Fault-Tolerant Computing, System Modelling and Analysis, Coding Theory, Error Detection



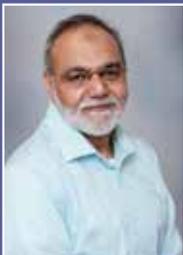
Dr. Zia Nadir
Associate Professor, Assistant Head of the Department

Research Interests: Electromagnetic Compatibility, Electronics, RF Communications System



Dr. Joseph Jervase
Associate Professor

Research Interests: Microwave Antennas and Propagation



Dr. Arif Malik
Associate Professor

Research Interests: Energy Policy and Planning



Dr. Faical Mnif
Associate Professor

Research Interests: Control Systems, Robotics



Dr. Lazhar Khriji
Associate Professor

Research Interests: Signal and Image Processing and Analysis, Nonlinear Filtering, Adaptive Filtering, Image Coding, Artificial Intelligence, Hardware Implementation of DSP Algorithms



Dr. Hassan Yousef
Associate Professor

Research Interests: Intelligent and Adaptive Control, Fuzzy Control Applications to Electric Machine Drives and Power Systems, Large-Scale Systems, Nonlinear Control, High Performance Motion Control of Electric Machines



Dr. Muhammed Shafiq
Associate Professor

Research Interests: Tracking of Non-Linear Dynamic Systems, Adaptive Control, Tracking and Control of Robotics



Dr. Hisham Soliman
Associate Professor

Research Interests: Robust Control, Optimization, Large-Scale Systems, Control Application of Power System and Drive



Dr. Mustafa Mesbah
Associate Professor

Research Interests: Signals and Systems, Biomedical Signal Processing



Dr. Tariq Jamil
Associate Professor

Research Interests: Computer Architecture, Parallel Processing, Digital Systems, Computer Arithmetic, Information Technology



Dr. Mohammed H. Al-Badi
Associate Professor (on Sabbatical Leave)

Research Interests: Renewable Energy and Distributed Generation, Distribution Systems, Demand-Side Management, Power System Operation and Planning, Power System Economics



Dr. Muhammad S. Al-Nadabi
Assistant Professor

Research Interests: Signals and Systems, Communications, Signal Processing, Speech Processing, Image Processing



Dr. Amer Al-Hinai
Assistant Professor

Research Interests: Power Systems - Control and Operation, Multi-Agent Systems: Application of Control to Power Systems, Optimization Techniques and Applications to Power Systems



Dr. Fahad Bait-Shiginah
Assistant Professor

Research Interests: Modelling and Simulation, Discrete Event System Specification (DEVS), Cellular Space Modelling, Artificial Intelligence, Database and Software Engineering



Dr. Dawood Al-Abri
Assistant Professor

Research Interests: Communications, Computer Networks



Dr. Mohammed M. Bait-Suwallam
Assistant Professor

Research Interests: Wireless Communication Systems, Applications of Electromagnetics in Antennas and High-Speed Printed Circuit boards



Dr. Amir Abdulghani
Assistant Professor

Research Interests: Wireless and Mobile Communications, Signal Processing, Information Technology



Dr. Ahmed Al-Maashari
Assistant Professor

Research Interests: Computer Networking, Microprocessors, Software Developments



Dr. Rashid Al-Abri
Assistant Professor

Research Interests: Power Electronics and Drives, Power System Quality, Sustainable and Renewable Energy, Power System Stability



Dr. Hassan Al-Lawati
Assistant Professor

Research Interests: Antennas and Propagation, Wireless Communication



Dr. Nasser Jumaa Tarhuni
Assistant Professor

Research Interests: Wireless Communication, Digital Signal Processing, Optical CDMA, Wireless Sensor Networks, Applications of Signal Processing



Dr. Medhat Hussein Awadalla
Assistant Professor

Research Interests: Computer Engineering, Computer Systems, Real-Time Systems, Parallel Processing



Dr. Mahmoud I. Masoud
Assistant Professor

Research Interests: Electrical Machine Drives, Multiphase Machines, Power Electronics Applications, Applications of Renewable Energy Systems on Machines and Power Electronics



Dr. Ashraf Saleem
Assistant Professor

Research Interests: Modeling, Identification and Control of Mechatronics Systems



Dr. Abdelsalam Elhaffar
Assistant Professor

Research Interests: Power Systems Protections



Dr. Razzaqul Ahshan
Assistant Professor

Research Interests: Smart Grid, System Dynamics and Control



Dr. Osman Elgawi
Assistant Professor

Research Interests: Embedded Systems and Industrial Electronics, Robotics and Automation

Sayyed Samir Al Busaidi
Assistant Professor

Research Interests: Optical Communication Systems, Telecommunications



Eng. Salem Al-Hinai
Lecturer

Research Interests: Power Systems and Protection, Control Systems



Eng. Taha Al-Saadi
Demonstrator

Research Interest: Control Systems



Eng. Saleh Al-Yazidi
Department Technical Superintendent

Research Interest: Electronics



Eng. Khalaf Al-Ufi
Chief Engineer A

Research Interest: Electronics



Mr. Suleiman Al-Kalbani
Lab Supervisor A

Research Interest: High-Voltage



Mr. Mohammed Al-Harrasi
Lab Supervisor B

Research Interest: Electrical Machines



Eng. Saleem Al-Rashdi
Chief Engineer A

Research Interest: Electrical Machines



Eng. Jaber Al-Balushi
Senior Engineer B

Research Interest: Digital Logic Design



Eng. Suleiman Al-Sinani
Engineer A

Research Interest: Electrical Machines



Mr. Iftaquaruddin Mohammed
Technician

Research Interests: Digital Chips, Information Technology



Eng. Abbas Eissa Teirab
Engineer B

Research Interests: Antennas, Communication Systems



Eng. Nabil Hamza
Lab Supervisor C

Research Interest: Digital Logic Design

Eng. Yousef Al-Shuaili
Senior Engineer B

Research Interest: Control Systems

Eng. Said Al-Abri
Lecturer (On study leave)

Research Interest: Communication, Control Systems



Mr. Sami Al-Jaafari
Technician

Research Interest: Electronics



Eng. Rona George Allwyn
Engineer B

Research Interest: Electrical Machines



Eng. Naeema Al-Gaithi
Engineer B

Research Interest: Electronics



Mrs. Salwa Al-Bahri
Technician C

Research Interest: Electronics



Mr. Said Al-Hajri
IT Officer

Research Interests: Information Technology, Computer Networks

Mrs. Laila Al-Hosni

Administrator

Mrs. Theresa Ragudo

Administrator

DEPARTMENTAL COMMITTEES



Table C2: Departmental Committees

Accreditation Committee	Dr. Nasser Tarhuni (Chair)
	Dr. Nasser Hosseinzadeh
	Dr. Faical Mnif
	Dr. Mahmoud Masoud
	Dr. Abdulsalam Elhaffar
	Dr. Ashraf Saleem
	Dr. Dawood Al Abri
	Mr. Suleiman Al Kalbani
Mr. Iftiqar Mohammed (Secretary)	
Strategic Planning Committee	Dr. Joseph Jervase (Chair)
	Dr. Arif Malik
	Dr. Hisham Soleiman
	Mr. Yousef Al-Shuaili

Curriculum Review and Student Advisement Committee

Prof. Abdalnaser Hossen (Chair)
 Dr. Joseph Jervase
 Dr. Zia Nadir
 Prof. Afaq Ahmad
 Prof. Ibrahim Metwally
 Dr. Hassan Yousef
 Dr. Lazhar Khriji
 Dr. Ahmed Al-Maashri (Postgraduate)
 Dr. Rashid Al-Abri (Postgraduate)

Final-Year Projects

Dr. Hassan Yousef (Chair)
 Dr. Lazhar Khariji
 Dr. Medhat Hussein
 Dr. Abdulsalam Elhaffar
 Mr. Salem Al-Hinai
 Mr. Jabir Al Balushi
 Mr. Nabil Hamza
 Mr. Said Al-Hajri
 Mr. Iftiqar Mohammed

Laboratories and Teaching Facilities

Dr. Mustefa Mesbah (Chair)
 Dr. Fahad Bait-Shiginah
 Dr. Razzaqul Ahshan
 Mr. Said Al-Hajri
 Mr. Saleh Al-Yazidi (Superintendent)
 Mr. Khalaf Al-Ufi

Health, Safety and Environment Committee

Dr. Lazhar Khariji (Chair)
 Dr. Mahmoud Masoud
 Mr. Suleiman Al-Kalbani
 Mr. Sami Al-Jaafari

Human Resources Committee	Dr. Nasser Hosseinzadeh (Chair) Dr. Fahad Bait-Shiginah Dr. Muhammad Al-Nadabi Dr. Hassan Yousef Dr. Amer Al-Hinai
Industrial Advisory Board Committee	Dr. Nasser Hosseinzadeh (Chair) Prof. Hadj Bourdoucen Dr. Fahad Bait-Shiginah
Industrial Outreach Committee	Sayyid Dr. Samer Al-Busaidi (Chair) Prof. Hadj Bourdoucen Dr. Ahmedd Al-Maashri Dr. Hassan Al-Lawati Dr. Muhammed Shafiq
Community Services and Publicity Committee	Dr. Muhammad Al-Nadabi (Chair) Dr. Amir Abdulghani Mr. Abbas Teirab
Publication and Web Committee	Dr. Mohammed Bait-Suwaitam (Chair) Dr. Hisham Soleiman Dr. Osman Elgawi Mr. Said Al-Hajri Mr. Jabir Al-Bulushi
Postgraduate Studies and Research Committee	Dr. Ahmed Al-Maashri (Chair) Dr. Hisham Soleiman Dr. Mustefa Mesbah Dr. Mohammed Bait-Suwaitam Dr. Rashid Al-Abri
Student Societies and Social Activities Committee	Dr. Ashraf Saleem (Chair) Dr. Medhat Hussein Mr. Taha Al-Saadi

Student Staff Liaison Committee

- Dr. Nasser Hosseinzadeh (Chair)
- Dr. Zia Nadir (Assistant Head)
- Mr. Salem Al-Hinai
- Selected students from cohorts

Timetabling Committee

- Dr. Zia Nadir (Assistant Head, Chair)
- Dr. Rashid Al-Abri
- Dr. Hassan Al Lawati
- Mr. Saleh Al-Yazidi (Superintendent)
- Mr. Abbas Tirab

Coordinators and IT Support

- Mrs. Laila Al-Husni
- Mrs. Theresa Ragudo
- Mr. Said Al-Hajri



UNDERGRADUATE STUDIES



Courses

Table C3: Courses Offered in Spring 2016

Code	Title	Instructor(s)
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE2016	Circuit Analysis I	Dr. Khalid Metwally
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE3015	Electrical Engineering Fundamentals	Dr. Khalid Metwally
ECCE3015	Electrical Engineering Fundamentals	Dr. Hassan Yousuf
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdulsalam Elhaffar
ECCE3015	Electrical Engineering Fundamentals	Dr. Hisham Soliman
ECCE3016	Circuit Analysis II	Dr. Khalid Metwally
ECCE3016	Circuit Analysis II	Dr. Hisham Soliman
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3022	Electromagnetics I	Dr. Mohammed M. Bait-Suwailam
ECCE3022	Electromagnetics I	Dr. Joseph Jervase
ECCE3022	Electromagnetics I	Dr. Hassan Al-Lawati

Code	Title	Instructor(s)
ECCE3036	Measurements and Instrumentation	Dr. Hassan Yousuf
ECCE3142	Signals and Systems	Dr. Amir Mohamed Abdulghani
ECCE3152	Electronics I	Dr. Osman Elgawi
ECCE3206	Digital Logic Design	Dr. Tariq Jamil
ECCE3206	Digital Logic Design	Dr. Samir Al-Busaidi
ECCE3206	Digital Logic Design	Dr. Muhammed Al-Nadabi
ECCE3206	Digital Logic Design	Dr. Fahad Awadh Bait Shiginah
ECCE3258	Applied Engineering Programming	Dr. Mohammed Sarrab
ECCE3352	Electrical Technology	Prof. Abdullah Al-Badi
ECCE4009	Engineering Design and Professional Skills	Dr. Joseph Jervase
ECCE4009	Engineering Design and Professional Skills	Dr. Ali Al-Shidhani
ECCE4022	Electromagnetics II	Dr. Mohammed M. Bait-Suwailam
ECCE4080	Seminar and Field work	Dr. Salim Mohammed Al-Hinai
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Mohamed Abdulghani
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Mohamed Abdulghani
ECCE4126	Principles of Digital Communications	Dr. Nasser Tarhuni
ECCE4142	Digital Signal Processing	Dr. Mustefa Mesbah
ECCE4142	Digital Signal Processing	Dr. Lazhar Khriji
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4158	Electronics II	Prof. Hadj Bourdoucen
ECCE4227	Embedded Systems	Prof. Afaq Ahmad Ahmad
ECCE4227	Embedded Systems	Dr. Husam Fahmi
ECCE4242	Introduction to Computer Networks	Dr. Husam Fahmi
ECCE4254	Operating Systems	Dr. Medhat Hussein
ECCE4257	Applied Algorithms for ECE	Dr. Sultan Al Yahyai
ECCE4312	Power System Analysis I	Dr. Mohammed Al-Badi
ECCE4316	Power System Analysis II	Dr. Mohammed Al-Badi
ECCE4356	Electrical Machines I	Dr. Hisham Soliman

Code	Title	Instructor(s)
ECCE4356	Electrical Machines I	Dr. Hisham Soliman
ECCE4357	Electrical Machines II	Dr. Mahmoud Masoud
ECCE4358	Electrical Machines	Dr. Mahmoud Masoud
ECCE4416	Linear Control Systems	Dr. Mustefa Mesbah
ECCE4436	Industrial Control System Design	Dr. Muhammed Shafiq
ECCE4455	Sensors and Actuators	Dr. Ashraf Saleem
ECCE4467	Power Electronics and Drives	Dr. Rashid Said Al-Abri
ECCE5004	Engineering Management and Economics I	Dr. Arif Saed Malik
ECCE5099	Project (Part II)	Dr. Muhammed Shafiq
ECCE5124	Wireless Communications	Dr. Nasser Tarhuni
ECCE5134	Selected Topics in Communications	Prof. Abdulnasser Hossen
ECCE5143	Advanced Digital Signal Processing	Dr. Lazhar Khriji
ECCE5214	Advanced Logic and Computer Interfacing	Dr. Afaq Ahmad
ECCE5215	Computing Systems for Engineering Applications	Dr. Ahmed Al Maashri
ECCE5223	Advanced Embedded Systems Design	Dr. Osman Elgawi
ECCE5231	Industrial Networks and Operating Systems	Dr. Medhat Hossein
ECCE5232	Computer Architecture and Organization I	Dr. Tariq Jamil
ECCE5292	Selected Topics in Computer Engineering	Dr. Fahad Awadh Bait Shiginah
ECCE5302	Power System Protection	Dr. Abdelsalam Elhaffar
ECCE5303	Power Distribution System Engineering	Dr. Abdelsalam Elhaffar
ECCE5315	Smart Grid	Dr. Nasser Hosseinzadeh
ECCE5332	High Voltage Engineering	Prof. Ibrahim Metwally
ECCE5422	Selected Topics in Control Systems	Dr. Hassan Yousuf
ECCE5445	Control Systems Design	Dr. Muhammed Shafiq
ECCE5433	Modern Control Systems	Dr. Faical Mnif
ENGR1501	Introduction to Engineering	Dr. Muhammad Al-Nadabi

Table C4: Courses Offered in Fall 2016

Code	Title	Instructor(s)
ECCE2016	Circuit Analysis I	Dr. Arfan Ghani
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE2016	Circuit Analysis I	Dr. Tariq Jamil
ECCE2016	Circuit Analysis I	Dr. Zia Nadir
ECCE3015	Electrical Engineering Fundamentals	Dr. Razzaqul Ahshan
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdelsalam Elhaffar
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3016	Circuit Analysis II	Dr. Arif Said Malik
ECCE3022	Electromagnetics I	Dr. Mohammed M. Bait-Suwailam
ECCE3022	Electromagnetics I	Dr. Hassan Al-Lawati
ECCE3036	Measurements and Instrumentation	Dr. Hassan Yousef
ECCE3038	Electrical Measurements and Instrumentation	Dr. Ashraf Saleem
ECCE3038	Electrical Measurements and Instrumentation	Dr. Taha Al Saadi
ECCE3142	Signals and Systems	Prof. Abdulnasir Hossen
ECCE3152	Electronics I	Dr. Osman Elgawi
ECCE3152	Electronics I	Dr. Lazhar Khriji
ECCE3206	Digital Logic Design	Dr. Fahad Awadh Bait Shiginah
ECCE3206	Digital Logic Design	Dr. Dawood Al Abri
ECCE3206	Digital Logic Design	Dr. Samir Al-Busaidi
ECCE3258	Applied Engineering Programming	Dr. Ahmed Al Maashri
ECCE3258	Applied Engineering Programming	Dr. Medhat Hussein
ECCE3352	Electrical Technology	Dr. Abdelsalam Elhafar
ECCE4009	Engineering Design	Dr. Mohammed Shafiq
ECCE4009	Engineering Design	Prof. Afaq Ahmad
ECCE4022	Electromagnetics II	Dr. Mohammed M. Bait-Suwailam
ECCE4080	Seminar and Field work	Dr. Salim Mohammed Al-Hinai

Code	Title	Instructor(s)
ECCE4122	Analog and Digital Communications	Dr. Amir Mohamed Abdulghani
ECCE4122	Analog and Digital Communications	Dr. Muhammad Al-Nadabi
ECCE4142	Digital Signal Processing	Dr. Lazhar Khriji
ECCE4142	Digital Signal Processing	Dr. Muhammad Al-Nadabi
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4227	Embedded System	Dr. Medhat Hussein
ECCE4227	Embedded System	Dr. Osman Elgawi
ECCE4242	Introduction to Computer Networks	Dr. Ahmed Said Al Maashri
ECCE4312	Power System Analysis I	Dr. Abdelsalam Elhaffar
ECCE4312	Power System Analysis I	Dr. Mohammed Al-Badi
ECCE4316	Power System Analysis II	Dr. Nasser Hosseinzadeh
ECCE4416	Linear Control Systems	Dr. Hisham Soliman
ECCE4422	Digital Control Systems	Dr. Hassan Yousef
ECCE4467	Power Electronics and Drives	Dr. Rashid Said Al-Abri
ECCE5004	Engineering Management and Economics I	Dr. Arif Saeed Malik
ECCE5004	Engineering Management and Economics I	Dr. Arfan Ghani
ECCE5009	Project (Part I)	Dr. Muhammed Shafiq
ECCE5112	Antennas	Dr. Joseph Jervase
ECCE5123	Optical Communications	Dr. Naser Tarhuni
ECCE5231	Industrial Networks and Operating Systems	Dr. Medhat Hussein
ECCE5213	Fault-Tolerant Computing Systems	Prof. Afaq Ahmad
ECCE5242	Advanced Computer Networks	Dr. Dawood Al Abri
ECCE5265	Database Systems	Dr. Fahad Awadh Bait Shiginah
ECCE5314	Special Topics in Power	Dr. Amer Al Hinai
ECCE5322	Electrical Power Systems Quality	Dr. Rashid Said Al-Abri
ECCE5314	Special Topics in Power	Dr. Amer Al Hinai
ECCE5452	Computer Aided Instrumentations	Prof. Hadj Bourdoucen

Code	Title	Instructor(s)
ECCE5432	Programmable Logic Control Systems	Dr. Mohammed Shafiq
ECCE5433	Modern control Systems	Dr. Faical Mnif
ENGR1501	Introduction to Engineering	Dr. Muhammad Al-Nadabi
ENGR3006	Industrial Training	Dr. Salim Mohammed Al-Hinai
MCTE3110	Electronics	Dr. Lazhar Khriji
MCTE3210	Electromechanical Systems and Actuators	Dr. Ashraf Saleem
MCTE4185	Signals and Systems for Mechatronics	Dr. Abdulnasir Hossen
MCTE4250	Linear Control Systems	Dr. Faical Mnif

POSTGRADUATE STUDIES

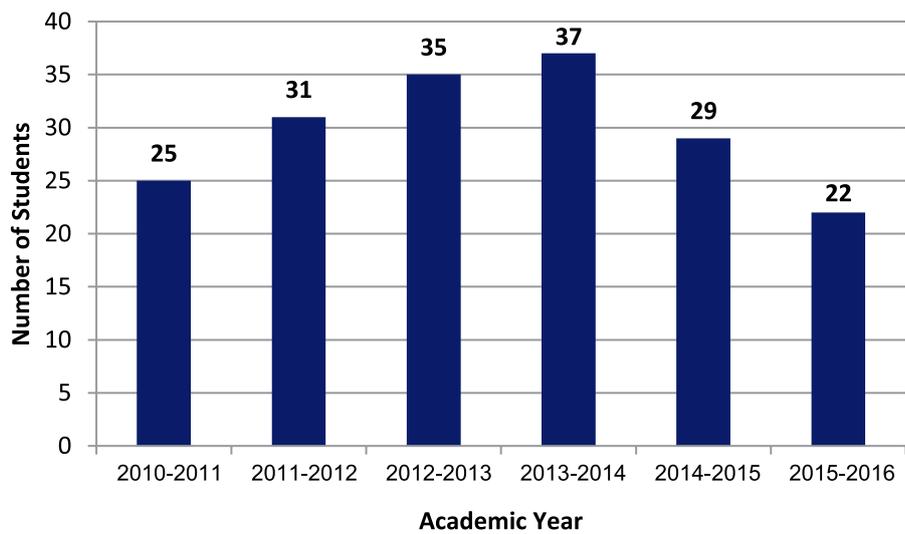


Figure C2: Postgraduate Students' Enrolment for the Past Six Years

Courses

Table C5: Postgraduate Courses Offered in Year 2016

Semester	Code	Title	Instructor(s)
Spring 2016	ECCE6135	RF Communications Circuits Design	Dr. Zia Nadir
	ECCE6213	Directed Studies	Dr. Mohammed Bait-Suwailam
	ECCE6292	Special Topics in Computer Engineering	Dr. Ahmed Al Maashri
	ECCE6346	High Voltage Technology	Prof. Ibrahim Metwally
	ECCE6400	Optimization Techniques in Engineering	Dr. Faical Mnif
	ECCE7000	Project	Prof. Afaq Ahmad
	ECCE8001	PhD Thesis	Prof. Afaq Ahmad
Fall 2016	ECCE6133	Optical Communication Systems	Dr. Joseph Jervase
	ECCE6510	Advanced Spectral Analysis for Biomedical Signals	Dr. Mustafa Mesbah
	ECCE6213	Directed Studies	Dr. Mohammed Bait-Suwailam
	ECCE6355	Distributed Generation	Dr. Amer Al Hinaï
	ECCE6232	Advanced Computer Architecture	Dr. Tariq Jamil
	ECCE6367	New Trends in Electrical Machines	Dr. Mahmoud Masoud
	ECCE6424	Computer Control of Dynamic Systems	Dr. Hisham Soliman
	ECCE7000	Project	Dr. Ahmed Al Maashri
	ECCE8001	PhD Thesis	Prof. Afaq Ahmad

Postgraduate Students' Projects

Table C6: Students' Projects in Year 2016

No	Student Name	Project Title
1	Asya AL Busaidi	Real-Time QRS Detection and Electrocardiogram Signal Compression using Wavelet Based Subbands
2	Mahdi Amiri	Modeling and Simulation of Heterogeneous Multikernel Architecture
3	Abdulaziz AL Abri	Cyber Security Attacker Behavior Modeling Using Game Theory, DNS Server As a Case Study
4	Saif AL Kalbani	System With The Penetration of Photo Voltaic Power Source and Including The Effect of Time Delay
5	Muna AL Rahbi	Controller Designs of Homogeneous and Non-homogeneous Vehicle Platoon System
6	Lavanya Pathuri	Securing Wireless Sensor Networks Using Customized Hardware Crypto Engine
7	Neeraja Mohanan	Application of Mathematical Morphology for Omani Vehicle Number Plate Recognition
8	Suja Kalarikkal	Computationally Efficient, Robust And Reversible Image Watermarking
9	Zahra Al-Abri	Deployment of SDN on Cloud Computing for Distance Learning Application
10	Mahmoud Mahajneh	Seasonal Propagation Path Loss Models for 4G-LTE Urban Micro- and Macro-Cellular Scenarios for Oman
11	Ahmed Al-Issaei	Modeling and Control Design of a Microgrid

RESEARCH

Grants and Contracts

Table C7: New Grants, Contracts and Consultancies by Faculty Members in Year 2016

Research Title	Principal Investigator(s)	Budget (OMR)	Funded by
Prediction of Bottom-Hole Pressure in Oman Oil Fields Using AI Techniques	Dr. Medhat Hussein	3,000	SQU
An Online Automated Alertness State Classification System for Improved Hearing Assessment	Dr. Mostefa Mesbah	6,500	SQU
Towards Solving the Engima of a Human Brain Using Multi-Dimensional Binary Number System	Dr. Tariq Jamil	3,000	SQU
Design and Implementation of Wireless Charging System for Mobile Phones	Dr. Mohammed Bait-Suwallam	5,000	The Research Council, Oman
Evaluation Economic Benefits and Developing Optimal Operation Strategy of Hybrid Renewable Energy	Dr. Amer Al-Hinai	7,708	Masdar Special Projects Company

Research Title	Principal Investigator(s)	Budget (OMR)	Funded by
Economic Evaluation of Proposed 5 MW PV Solar Power Project at PDO, MAF Parking Lot	Dr. Amer Al-Hinai	7,708	Petroleum Development of Oman (PDO)
Fundamentals of Power System Studies for Rural Areas Electricity Company (RAECO)	Dr. Mohammed Al-Badi	8,000	Rural Areas Electricity Company
Advanced of Power System Studies for Rural Areas Electricity Company (RAECO)	Dr. Mohammed Al-Badi	8,000	Rural Areas Electricity Company
Study of the Implementation of a Remotely Managed Tethered Helium Balloon for Omantel's Mobile Sites	Prof. Hadj Bourdoucen	10,000	Omantel
Free and Open Source Software (FOSS) Initiative National Deployment Plan	Prof. Hadj Bourdoucen	49,500	Information Technology Authority
Enterprises Transition to Smart Grid in Oman	Dr. Nasser Hosseinzadeh	98,215	The Research Council, Oman

Publications

Refereed Journal Papers

1. Aboelela, M.A. and Soliman, H. 2016. Robust Fractional Order Proportional, Integral, and Derivative Stabilizer for Power Systems. *Indonesian Journal of Electrical Engineering and Computer Science*, 1:38-52.
2. Al Busaidi, A., Kazem, H., Al-Badi, A. and. Khan, M. 2016. Review of Optimum Sizing of Hybrid Photovoltaic-Wind Renewable Energy Systems in Oman. *Renewable and Sustainable Energy Reviews*, 53:185-193.

3. Al-Maashri, A., Pathuri, L., Awadalla, M., Ahmad, A. and Khaoua, M.O. 2016. Optimized Hardware Crypto Engines for XTEA and SHA-512 for Wireless Sensor Nodes. *Indian Journal of Science and Technology*, 9(29):1-7.
4. Al-Mezeini, N., Manickavasagan, A., Al-Yahyai, R., Al-Wahaibi, A., Al-Raeesi, A. and Khriji, L. 2016. X-ray Imaging of Stored Dates to Detect Infestation by Saw-Toothed Beetles. *International Journal of Fruit Science*, 16(1):42-56.
5. Al-Yahyai, S., Tan, C., Al Hatmi, Y. and Al-Badi, A. 2016. Wind Resource Assessment over Al Duqm Industrial Area in Oman. *Arabian Journal of Geosciences*, 9(297):1-8.
6. Awadalla, M. and Yousef, H. 2016. Neural Networks for Flow Bottom Hole Pressure Prediction. *International Journal of Electrical and Computer Engineering*, 6(4):1839-1856.
7. Awadalla, M., Yousef, H., Al-Hinai, A. and Al-Shidani, A. 2016. Artificial Intelligent Techniques for Flow Bottom Hole Pressure Prediction. *International Journal of Computers and Technology*, 15(12):7263-7283.
8. Benzaouia, A., Soliman, H. and Saleem, A. 2016. Regional Pole Placement with Saturated Control for DC-DC Buck Converter through Hardwar-In-the-Loop. *Transactions of the Institute of Measurement and Control*, 38:1041-1052.
9. Hamza, N., Khriji, L. and Tourki, R. 2016. Rejection of Common-Mode Voltages in ECG Signal by Removing the Ground Electrode. *International Journal of Scientific and Engineering Research*, 7(2):1480-1483.
10. Hassan, M., Alrifai, M., Soliman, H. and Kourah, M. 2016. Observer-Based Controller for Constrained Uncertain Stochastic Nonlinear Discrete-Time Systems. *International Journal of Robust and Nonlinear Control*, 26:2090-2115.
11. Himri, Y., Rehman, S., Himri, S., Mohammadi, K., Sahin, B. and Malik, A. 2016. Investigation of Wind Resources in Timimoun Region, Algeria. *Wind Engineering*, 40:250-260.
12. Klimontowicz, M., Al-Hinai A. and Peng, J. 2016. Optimal LFC SMC for Three-Area Power System with High Penetration of PV. *Journal of Electrical System*, 12(1):68-84.
13. Masoud, M. 2016. Fully Controlled 5-Phase, 10-Pulse, Line Commutated Rectifier. *Alexandria Engineering Journal*, 54(4):1091-1104.
14. Metwally, I.A. 2016. Tape-Wound Rogowski Coil for Measuring Large-Magnitude Pulsed Currents. *Journal of Instruments and Experimental Techniques*, 59(2):250-257.
15. Mohanan, N., Ahmad, A., Abdulghani, A., Al Nadabi, M., Khriji, L. and Al Busaidi, S. 2016. A Brief Description of Pattern Recognition Techniques. *Imperial Journal of Interdisciplinary Research*, 2(8):717-722.

16. Rehman, O., Khaoua, M.O. and Bourdoucen, H. 2016. An Adaptive Relay Nodes Selection Scheme for Multi-hop Broadcast in VANETs. *Computer Communications*, 87:76-90.
17. Rigatos, G., Zhu, G., Yousef, H. and Boulkroune, A. 2016. Flatness-based Adaptive Fuzzy Control of Electrostatically Actuated MEMS Using Output Feedback. *Fuzzy Sets and Systems*, 290:138-157.
18. Saidani, T., Atri, M., Khriji, L. and Tourki, R. 2016. An Efficient Hardware Implementation of Parallel EBCOT Algorithm for JPEG2000. *Journal of Real-Time Image Processing*, 11(1):63-74.
19. Soliman, H. 2016. Resilient Observer-based Power System Stabilizers. *Transactions of the Institute of Measurement and Control*, 38:981-991.
20. Soliman, H. and Al-Abri, R. 2016. Constrained Digital Regional Pole Placer for Vehicle Active Suspension. *International Journal of Control Theory and Applications*, 9:371-388.
21. Soliman, H. and Soliman, M. 2016. Design of Observer-based Robust Power System Stabilizers. *International Journal of Electrical and Computer Engineering*, 6:1965-1966.
22. Soliman, H., Benzaouia, A. and Yousef, H. 2016. Saturated Robust Control with Regional Pole Placement and Application to Car Active Suspension. *Journal of Vibration and Control*, 22:258-269.
23. Soliman, H., Benzaouia, A. and Yousef, H. 2016. Wide-Range Reliable Stabilization of Time-Delayed Power Systems. *Turkish Journal of Electrical Engineering and Computer Sciences*, 24:2853-2864.
24. Ssekulima, B., Anwar M.B., Al-Hinai, A. and El Moursi, M. 2016. Wind Speed and Solar Irradiance Forecasting Techniques for Enhanced Renewable Energy Integration with the Grid: A Review. *IET Renewable Power Generation*, 10(7):885-989.
25. Tarhuni, N., Elmusrati, M. and Al-Nadabi, M. 2016. Stochastic Allocation of Transmit Power for Realistic Wireless Channel Models. *The Journal of Engineering Research*, 13:72-79.

Refereed Conference Papers

1. Al Hatmi, Y., Tan, C.S., Al-Yahyai, S. and Al-Badi, A. 2016. Solar Resource Mapping of AL Duqm Industrial Area. In: *Proceedings of the 2nd International Conference on Advances in Renewable Energy Technologies*, Putrajaya, Malaysia, 23-25 February 2016.
2. Al-Badi, A. and Yousef, H. 2016. Design of Photovoltaic Water Pumping System as an Alternative to Grid Network in Oman. In: *Proceedings of the International Conference on Renewable Energies and Power Quality*, Madrid, Spain, 4-6 May 2016.
3. Al-Kalbani, S., Yousef, H. and Al-Abri, R. 2016. Load Frequency Control of a Multi-Area Power System with PV penetration: PI and PID Approach in Presence of Time Delay. In: *Proceedings of the 51st International Universities' Power Engineering Conference*, Coimbra, Portugal, 6-9 September 2016.
4. Al-Kathiri, F., Al-Raisi, K., Al-Hinai, K., Al-Droushi, M., Khan, M. and Nadir Z. 2016. Impact of RF Electromagnetic Field on Cucumber and Tomato Plants. In: *Proceedings of the 7th IEEE Annual Information Technology, Electronics and Mobile Communication Conference*, Vancouver, Canada, 13-15 October 2016.
5. Al-Lawati, H. and Khamas, S. 2016. Circularly Polarized Open Loop Antenna Backed by Square AMC with Different Feeding Mechanisms. In: *Proceedings of the IEEE Middle East Conference on Antennas and Propagation*, Beirut, Lebanon, 21-22 September 2016.
6. Al-Lawati, H. and Khamas, S. 2016. Wide-Band Circularly Polarized Elliptical Dielectric Resonator Antenna. In: *Proceedings of the Loughborough Antennas and Propagation Conference*, Loughborough, UK, 14-15 November 2016.
7. Al-Lawati, M. and Yousef, H. 2016. Stability Analysis and Trajectory Design of a 2-D.O.F. Bipedal Walker. In: *Proceedings of the 29th Annual IEEE Canadian Conference on Electrical and Computer Engineering*, Vancouver, Canada, 15-18 May 2016.
8. Awadalla, M., Yousef, H., Al-Hinai, A. and Al-Shidani, A. 2016. Prediction of Oil Well Flowing Bottom-Hole Pressure in Petroleum Fields. In: *Proceedings of the 6th IEEE International Conference on Industrial Engineering and Operations Management*, Kuala Lumpur, Malaysia, 8-10 March 2016.
9. Boudelloua, A. and Bait-Suwailam, M. 2016. Enhancement of an UWB Antenna System for Breast Cancer Detection using Metamaterials. In: *Proceedings of the 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics*, Malaga, Spain, 25-28 July 2016.
10. Hosseinzadeh, N. and Mnif, F. 2016. Assessment of Individual Students in Group Work in Engineering Programs. In: *Proceedings of the IEEE Global Engineering Education Conference*, Abu Dhabi, UAE, 10-13 April 2016.

11. Hosseinzadeh, N., Al-Badi, M., Al-Hinai, A., Al-Badi, A. and Islam, S. 2016. Customized Pathway for Smart Grid Development-A Case Study in Oman. In: *Proceedings of the IEEE Innovative Smart Grid Technologies*, Melbourne, Australia, 28 November- 1 December, 2016.
12. Jamil, T., Mohammed, I. and Awadalla, M. 2016. Design and Implementation of an Eye Blinking Detector System for Automobile Accident Prevention. In: *Proceedings of the IEEE Southeast Conference*, Norfolk, Virginia, USA, 30 March-3 April 2016.
13. Masoud, M. 2016. Five Phase Induction Motor: Phase Transposition Effect with Different Stator Winding Connections. In: *Proceedings of the 42nd Annual Conference of IEEE Industrial Electronics Society*, Florence, Italy, 24-27 October 2016.
14. Masoud, M., Hassan, A., Dabour, S. and Rashad, E. 2016. Control of Five-Phase Induction Motor under Open-Circuit Phase Fault fed by Fault Tolerant VSI. In: *Proceedings of the IEEE International Symposium on Diagnostics, Power Electronics and Drives*, Guarda, Portugal, 1-4 September 2016.
15. Metwally, I., Al-Badi, A., Al-Hinai, A., Al Kamali, F. and Al-Ghaithi, H. 2016. Influence of Design Parameters and Defects on Electric Field Distributions inside MV Cable Joints. In: *Proceedings of the 18th Mediterranean Electrotechnical Conference*, Limassol, Cyprus, 18-20 April, 2016.
16. Metwally, I.A., Al-Badi, A., Al-Hinai, A., Al-Kamali, F. and Al-Ghaithi, H. 2016. Influence of Design Parameters and Defects on Electric Field Distributions inside Medium-Voltage Cable Joints. In: *Proceedings of the 18th Mediterranean Electrotechnical Conference*, Limassol, Cyprus, 18-20 April 2016.
17. Nadir, Z., Ali, S. and Al-Belushi, T. 2016. Cyber Physical Systems Security Challenges in a Smart Grid Environment. In: *Proceedings of the International Conference on Renewable Energy - Generation and Applications*, Belfort, France, 8-10 February 2016.
18. Shafiq, M., Al-Lawati, M. and Yousef, H. 2016. A Simple Direct Adaptive Inverse Control Structure. In: *Proceedings of the 29th Annual IEEE Canadian Conference on Electrical and Computer Engineering*, Vancouver, Canada, 15-18 May, 2016.
19. Ssekulima, E. and Al-Hinai, A. 2016. Coordinated Voltage Control of Solar PV with MPPT and Battery Storage in Grid-Connected and Microgrid Modes. In: *Proceedings of the 18th Mediterranean Electrotechnical Conference*, Limassol, Cyprus, 18-20 April, 2016.
20. Suja, K.P., Tarhuni, N., Ahmad A. and Bait Shiginah, F, 2016. Computationally Efficient, Robust Watermarking Using Fast Walsh Hadamard Transform. In: *Proceedings of the 7th International Conference on Computing Communication and Networking Technologies*, Dallas, TX, USA, 6-8 July 2016.

Book Chapters

1. Mohsin, S.H., Khan, R. and Ahmad, A. 2016. Chapter 6 -Engineers. In: Siddiqui, A. H. (Ed). Publishers Nano Edge, ISBN: 978-81-930155-0-6. Released: 29 July 2016, Vigyan Bhawan, New Delhi, India. pp. 305-342.
2. Siddiqi, M.N. and Ahmad, A. 2016. Chapter 10-Theologians. In: Siddiqui, A. H. (Ed). Publishers Nano Edge, ISBN: 978-81-930155-0-6. Released: 29 July 2016, Vigyan Bhawan, New Delhi, India. pp. 428-441.
3. Hosseinzadeh, N. and Al-Badi, A. 2016. Effect of Accreditation on Quality of Teaching and Learning and Multi-Disciplinary Collaboration-Case Study. Promoting Interdisciplinarity in Knowledge Generation and Problem Solving, Editorial Discovery™ online submission.

Technical Reports

1. Al-Hinai, A. and Acharya, S. 2016. *Evaluating Economic Benefits and Developing Optimal Operation Strategy of Hybrid Renewable Energy/Battery Storage/Diesel Systems*. Progress Report, Masdar Special Projects, UAE.
2. Al-Hinai, A. and Al-Badi, M. 2016. *Solar Power Project at MAF Parking Lot Economic Evaluation*. Final report, PDO, Oman.
3. Al-Hinai, A., Pandi, R., Al-Yammahi H. and Lukasz, H. 2016. *Intelligent Load Frequency Control Scheme for Distributed Generation*. Final report, Masdar Institute, UAE.
4. Ali, S., Al Belushi, T., Nadir, Z. 2016. *Cyber Security for Cyber Physical Systems of Oman*. Second Year Progress Report, The Research Council, Sultanate of Oman.

OTHER ACTIVITIES



Seminars

- Ahmad, A. 2016. Seminar on Understanding Academic Regulation for Effective Academic Advising. Seminar for Faculty Members, College of Engineering, SQU, Oman, 25-26 May 2016.
- Ahmad, A., Al Nadabi, M., Abdullatif, H. and Al Aghbari, M. 2016. Seminar and Panel Discussion - Students' Successes, Academic Advising Seminar for Students. College of Engineering, Sultan Qaboos University, Sultanate of Oman, 14 December 2016.
- Ahmad, A. 2016. Seminar on Academic Advising as Orientation Program for Faculty Members, College of Engineering. Sultan Qaboos University, Sultanate of Oman, 24 April 2016.
- Ahmad, A. 2016. Seminar on Understanding Academic Regulation for Effective Academic Advising - Seminar for Faculty Members. College of Engineering, Sultan Qaboos University, Sultanate of Oman, 25-26 May 2016.
- Al-Badi, A.H., Bahdour, I. and Ahmad, A. 2016. Seminar and Panel Discussion - Advising for Students' Success, Academic Advising Seminar for Faculty Members, College of Engineering, Sultan Qaboos University, Sultanate of Oman, 21 December 2016.

Cooperation with Local and Foreign Organizations

- Abdulghani, A. 2016. Collaborated with Al Musanna College of Technology, Ministry of Manpower, in Knowledge and Experience Sharing Related to Latest Engineering Education and Information Technology.
- Al Maashri, A. 2016. Collaborated with Sas Virtual Reality Center, Information Technology Authority (ITA) in Running Workshops, Research, and Student Projects Related to Virtual Reality and Augmented Reality Applications.
- Metwally, I. and Al-Badi, M. 2016. Collaborated with many leading national electrical power companies in Oman, including Rural Areas, Muscat, Mazoon, Majan and Oman Transmission Electricity Companies in organizing several workshops related to establishing a sustainable and unique projects in the electrical power and energy area.

Short Courses and Workshops

- Amir Abdulghani arranged with Solids Works to run a training workshop on use of Solid Works, Sultan Qaboos University, Muscat, Oman, 17-21 January 2016.
- Amir Abdulghani arranged with ANSYS Company to run a training workshop on ANSYS modelling and applied simulation, Sultan Qaboos University, Muscat, Oman, 21-25 February 2016.
- Hassan Al-Lawati delivered a lecture on Electromagnetic Spectrum. Part of Military Forces' workshop program, organized by Center for Community Service and Continuing Education, Sultan Qaboos University, Muscat, Oman, 29 December 2016.
- Mahmoud Masoud delivered a workshop on Renewable Energy Systems, Independent Learning Centre, SQU, 2016.
- Naser Tarhuni delivered a lecture on Signals, Satellite and Radar. Part of Military Forces' Workshop program, organized by Center for Community Service and Continuing Education, Sultan Qaboos University, Muscat, Oman, 29 December 2016.

Invited Talks

- Ahmad, A. 2016. Trustworthy Applications of Linear Feedback Shift Registers. 3rd IEEE International Conference on Signal Processing and Integrated Networks, SPIN-2016, Amity University, Noida, India, 11-12 February 2016.



- Ahmad, A. 2016. Knowledge and Skill Based Education, Education Development of Weaker Sections in India, 125th Anniversary Function of Duty Society of AMU, Vigyan Bhawan, New Delhi, India, 29 July 2016.
- Ahmad, A. 2016. Big Changes: Mounting Bigger Challenges for Security, Test and Reliability, 5th IEEE International Conference on Reliability, Infocom Technologies and Optimization (ICRITO 2016), Amity University, Noida, India, 7-9 September 2016.
- Al-Badi, A. 2016. Opportunities for Renewable Energies in Oman. GCC Renewable Energy Workshop, Riyadh, KSA, 26 April 2016.
- Al-Badi, M. 2016. Grid-Connected PV Systems. Windorex, Glass and Aluminum Oman, International Exhibition Centre, Muscat, Oman, 17 May 2016.
- Al-Badi, M. 2016. Renewable Energy in Oman. Water and Energy Research Symposium, SQU, Muscat, Oman, 16 March 2016.
- Al Maashri, A. 2016. Embedded Vision Systems from FOSS to FPGA. Information Security Gathering (ISeG-Oman 2016), SQU, Oman, 16 March 2016.
- Jamil, T. 2016. Artificial Brain - How to Make It? The 10th IEEE International Conference on Open Source Systems and Technologies, University of Engineering and Technology, Lahore, Pakistan, 16 December 2016.
- Jamil, T. 2016. Complex Binary Number System. IEEE Southeast Con. 2016, Norfolk, Virginia, USA, 30 March 2016.
- Masoud, M. 2016. Multiphase Systems. Musdar Institute, Abu Dhabi, UAE, October 2016.
- Masoud, M. 2016. Multiphase Systems. Glasgow Caledonian University, Glasgow, Scotland, UK, November 2016.

Awards

- Dr. Nasser Hosseinzadeh and Dr. Faical Mnif received Best Paper Award at the IEEE Global Engineering Education Conference, Abu Dhabi, UAE, 10-13 April 2016.
- Dr. Tariq Jamil was elevated to the grade of Fellow of Institute of Electrical and Electronics Engineers (Pakistan), 29 July 2016.

- Student: Ahmed Al-Balushi, Supervisor: Dr. Fahad Bait-Shiginah - 2nd Prize Award at the 6th Technical Projects Forum, Sultan Qaboos University, Muscat, Oman, 2016. Title of the project: “Degree Planner Software”.
- Students: Khalsa Al Shukri, Sharifa Al Maamasri, and Balqis Al Balushi, Supervisor: Dr. Ahmed Al Maashri - 1st Place at the TRC’s FURAP ICT sector, The Research Council Research Forum, Oman, September 2016. Title of the project “Augmented Reality for Deaf and Hard-of-Hearing Individuals”.
- Students: Mazoon Al Maamari, and Salma Al Badi, Supervisors: Dr. Ashraf Saleem and Dr. Mostefa Mesbah – 2nd Place in the GCC Students Design Competition, SQU, March 2016. Title of the project: “Brain-Controlled Exoskeleton for Locked-In Syndrome Patients”.
- Students: Yazin Al Musafir, Shadha Al-Azri, and Hala Al Ishaqi, Supervisors: Dr. Ashraf Saleem and Dr. Mestafa Mesbah - Best Research Work in the Health and Social Services Sector, The Research Council, Oman, September 2016.
- Students: Malik Al-Awfi, Musab Al-Nadabi, Nasser Al-Gafri, and Qassim Al-Yafie, Supervisor: Dr. Ashraf Saleem - 1st Place in the Universities Robotics Competition (VEX-U), SQU, April 2016.

Students’ Activities

- PSPICE Essentials for ECE students (Sultan Qaboos University, September 2016)
- MATLAB Workshop for ECE students (Sultan Qaboos University, October 2016)
- Workshop on Design and Programming of VEX Robotics (Sultan Qaboos University)







Mechanical and Industrial Engineering



SUMMARY

The Department of Mechanical and Industrial Engineering offers educational programs in Mechanical Engineering and Industrial Engineering at Bachelor, Master and Doctoral levels. In addition, the Department offers a joint degree program in Mechatronics Engineering together with the Department of Electrical and Computer Engineering. Today, with ABET-accredited programs, the Department produces internationally recognized graduates who are competent and productive.

The Mechanical, Industrial and Mechatronics engineering programs offered by the Department are designed to produce graduates who can become future leaders for industry, academia, government and the society in Oman whose vision is founded upon fundamental knowledge, creative and analytical skills, local/regional perspective and ethics. Through a blend of course work and projects, the Department endows students with the ability to apply knowledge of science, mathematics and engineering to work effectively in multidisciplinary teams, provide leadership and technical expertise, and practice engineering with concern for society and environment.

The Department conducts extensive research in different areas and attracts funding for research and consultancy projects. The research projects are either internally funded by the university or externally by the industries of Oman, The Research Council (TRC), jointly with other Universities, and international agencies. In addition, faculty members and staff are involved in providing consultancy services to the industries, particularly on environmental issues. The laboratories in the Department are well equipped with modern devices and setups which are capable of conducting experimental work for both teaching and research purposes.



The vision of the Department of Mechanical and Industrial Engineering is to be recognized as an innovative and leading Department around the world. The mission of the Department is to provide an intellectual environment that allows world class learning and teaching, advancing frontiers of knowledge in Mechanical and Industrial Engineering professions through research and development, and to offer services to the local community.

The Department continues to interact with the local community in a number of ways. It has undertaken variety of research projects and delivered a number of consultancy services to local industries. In addition, the Department has organized numerous seminars and workshops that were conducted by international and local experts in their fields in various topics ranging from industrial applications and field experience to fundamental research. Faculty members continue to participate in the activities of local engineering organizations and industries.

The Department also encourages its students to involve in various activities. Most of the students' activities are organized by the student societies in the Department. The activities include social activities, seminars, design competitions and academic advising sessions. The main goal of the Mechanical, Industrial and Mechatronics Engineering Societies is to establish and maintain a communication bridge between the alumni and undergraduates as well as the Industry. Our students regularly participate in local and international competitions and obtain awards through their projects, their design and/or implementations. Recently, "SQU Echo Wheels" designed by the SQU students successfully participated in Shell Eco-Marathon Asia-2016 which was held in Manila, Philippines.

We constantly strive to provide avenues for excellence in research to our faculty/staff/students to serve the society. The faculty members of the Department have published 38 journal articles, 66 conference papers, 3 book chapters and 19 Technical Reports in 2016. Furthermore, numerous internal and external research funds have been acquired during 2016. The details of these achievements and more can be seen in the following tables and pages. In addition to Mechanical and Industrial Engineering programs, Mechatronics program had 105 undergraduate students enrolled and 20 Mechatronics students have graduated last year. The Department is also proud of its alumni, many of whom are holding leading positions at government ministries, major national and international companies and corporations, academic institutions in Oman and in the region.

Table D1: Summary

	2015	2016
Faculty	31	32
Support staff	25	25
Total	56	57
On-study leave	2	1
Undergraduate Program		
Enrollment	338	345
Courses offered	110	107
Graduates	99	123
Graduate Program		
Enrollment	12	17
Courses offered	9	14
Graduates	2	5
Research		
Grants	10	14
Publications		
Refereed Journals	58	38
Conference Proceedings	45	66



DEPARTMENTAL PROFILE



Dr. Nabeel Z. Al-Rawahi
Associate Professor, Head of the Department

Research Interests: Fluid Mechanics, Computational Fluid Dynamics, Multiphase Flow, Water Desalination



Dr. Sabah Ahmed Abdul-Wahab Al-Sulaiman
Professor

Research Interests: Monitoring of Pollutants in the Atmosphere, Outdoor Air Quality, Modelling and Chemistry of Ozone Formation, Modelling of the Dispersion of Air Pollution in the Atmosphere, Neural Network and Statistical Analysis, Liquid Desiccant Air Dehumidifier, Water Desalination, Renewable Energy



Dr. Tasneem Pervez
Professor

Research Interests: Computational Modeling, Multiscale Modeling, Composite Materials, Applied Mechanics, Finite Element Analysis, Expandable Tubular and Swelling Elastomers in Oil Well Drilling and Delivery, Engineering Education



Dr. Jamil Abdo
Professor

Research Interests: Mechanical Design, Tribology, Solid Mechanics and Materials Applications



Dr. Khalid Al-Zebdeh
Associate Professor

Research Interests: Computational Micromechanics, Nano-Composites, Project Management and Economics



Dr. Sayyad Zahid Qamar
Associate Professor

Research Interests: Applied Materials and Manufacturing, Engineering Design, Failure Analysis and Reliability



Dr. Ibrahim Garbie
Associate Professor

Research Interests: Analysis, Design, Reconfiguration, and Sustainable Development of Manufacturing/Production Systems



Dr. Chefi Triki
Associate Professor

Research Interests: Stochastic Optimization, Logistics and Supply Chain Management, Resources Optimization



Dr. Amur Al-Yahmadi
Associate Professor

Research Interests: Modeling and Simulation, Multibody Dynamics, and Robotics and Automation



Dr. Abdullah Al-Shabibi
Associate Professor

Research Interests: Applied Mechanics, Finite Element Modeling of Engineering Problems, Modeling of Contact Problems, Thermoelastic Instability



Dr. Mohammed Khadem
Assistant Professor

Research Interests: Lean Manufacturing, Simulation and Optimization, Decision Support System, Integrating between E-manufacturing and FMS, Logistic and Supply Chain, Production Planning and Control, Human Factors, Industrial Safety



Dr. Nasser Al-Azri
Assistant Professor

Research Interests: Thermodynamic Modeling and Psychometrics, Process Integration, Engineering Mathematics and Numerical Analysis, Mathematical Optimization



Dr. Riadh Zaier
Assistant Professor

Research Interests: Mechatronics Systems Design and Nonlinear Control, Robotics



Dr. Majid Al-Maharbi
Assistant Professor

Research Interests: Materials Science and Engineering, Corrosion, Severe Plastic Deformation of Metallic Materials, Crystallographic Texture and Microstructure Engineering



Dr. Mahmoud Al-Kindi
Assistant Professor

Research Interests: Risk Analysis, Six Sigma , Decision making under uncertainties, and Production Planning



Dr. Abdullah Ezer
Assistant Professor

Research Interests: Vibration and Control, Kinematics and Dynamics of Mechanical Systems, Machine Tool Chatter, Robotic Applications



Dr. Sujan Piya
Assistant Professor

Research Interests: Production planning and control, Supply chain management, Operations management for Make-to-Order System



Dr. Ramanathan Arunachalam
Assistant Professor

Research Interests: Materials, Manufacturing and Product Design



Dr. Nasr Al-Hinai
Assistant Professor

Research Interests: Operations Research, Production Scheduling Using Heuristic and Metaheuristic Approaches, Production Planning and Control, Product Design and Development



Dr. Afzal Husain
Assistant Professor

Research Interests: Computational Fluid Engineering, Micro-scale Heat Transfer, Electronics Cooling, Enhanced Heat Transfer Techniques and Design Optimization



Dr. Issam Bahadur
Assistant Professor

Research Interests: Micro/Nano-Electro-Mechanical Systems, Biomedical Instrumentation, Industrial Automation, Smart Materials and Vibration



Dr. Mojtaba Ghodsi
Assistant Professor

Research Interests: Mechatronics, Non-Destructive Evaluation, Smart Materials and Structures, Actuators, Motors and Transducers



Dr. Khurshid Alam
Assistant Professor

Research Interests: Orthopaedics, Bone Mechanics, FE modeling, Material Characterization, Material Modeling, Fracture Mechanics



Dr. Edris Masoud Hassan
Assistant Professor

Research Interests: Multi-scale Micromechanical Modeling, Elastic, Hygrothermal, Actuation and Piezomagnetic Effective Properties of Composites and Smart Structures, Grid-reinforced Smart Composite Structures, Nanostructured Polymers and Nanocomposites



Dr. Ahm Shamsuzzoha
Assistant Professor

Research Interests: Product Design, Business Networking, Supply Chain Management, Simulation Modelling, Project Management, Production Planning and Control



Dr. Abdullah Al-Janabi
Assistant Professor

Research Interests: Renewable Energy Technologies, Energy and Environment



Dr. Musaab Zarog
Assistant Professor

Research Interests: MEMS, Mechatronics



Dr. Morteza Mohammadzaheri
Assistant Professor

Research Interest: System Dynamics and Control



Dr. Farooq Al Jahwari
Assistant Professor

Research Interests: Applied Mechanics and Materials, Simulation and Design, FEM



Mohamed Al-Lawati
Lecturer

Research Interest: Mechatronics Engineering



Dr. Sulaiman Al-Obaidani
Research Associate

Al-Hail Desalination Lab



Hilal Al-Ismaily
Research Associate

Drawing/Auto CAD Lab



Faisal Al-Khatri
Department Technical Superintendent

Thermodynamics Lab, A/C and Refrigeration Lab



Mohammad Al-Hadhrami
Chief Engineer, Acting Workshop Superintendent

Solid Mechanics, Ergonomics, Manufacturing, Workshop 1 and 2



Saeed Al-Mughairy
Senior Engineer

Materials Lab, Al-Hail Desalination Lab



Mohammad Ali Al-Hadhrani
Lab Engineer

Fluid Mechanics Lab



Nasser Al-Azizi
Lab Engineer

Al-Hail Desalination Lab



Abdullah Al-Omrani
Lab Engineer

CIM Lab



Mahmood Al-Riyami
Lab Engineer

Automatic Control Lab



Said Al-Qarni
Engineer A

Thermodynamics Lab



Hadid Subeit Al-Alawi
Chief Engineer B

Workshop



Abdulaziz Al-Harasi
Senior Support Engineer

Workshop



Ahmed Sayed Faiz
Assistant Mechanic

Workshop



Mohammed Al-Salmi
Support Engineer

Workshop



Moosa Al-Ramadani
Technician

Workshop



Mahfoudh Al-Sharji
Technician

Workshop



Yahia Al-Agbari
Technician

Workshop



Marshal Miranda
Technician

Workshop



Hamood Al-Mahrizi
Senior Technician A

Workshop



Saleh Al-Malki
Technician

Workshop



Sultan Salim Ali Al-Hammadi
Technician

Workshop



Fawzi Al-Maashri
Technician

Workshop



Issa Al-Saifi
Storekeeper

Department's store



Basma Al-Farsi

Coordinator

Nasra Al- Maskari
Lecturer (On study leave)

Mechanical Engineering Design

Nour Al-Rasbi
Lab Engineer

Ergonomics, Industrial System Lab, Vibration Lab

Nusiba Al-Kharusi
Lab Engineer

Mechatronics Lab

Iman Al-Harhi

Administrative officer

DEPARTMENTAL COMMITTEES



Table D2: Departmental Committees

Department Board	Dr. Nabeel Al-Rawahi	Chair
	Dr. Khurshid Alam	Secretary
	Dr. Mahmoud Al-Kindi	IE program coordinator
	All Academic Staff	Members
	Eng. Mohamed Al-Hadhrami	Invited Member
	Mr. Faisal Al-Khatri	Invited Member
Department Accreditation Committee (DAC)	Dr. Nabeel Al-Rawahi	Chair
	Dr. Amur Al-Yahmadi	ABET ME Coordinator
	Dr. Nasr Al-Hinai	ABET IE Coordinator
	Prof. Tasneem Pervez	Advisor
	Prof. Jamil Abdo	Member
	Dr. Mohammed Khadem	Member
	Dr. Mahmoud Al-Kindi	Member (IE Program Coordinator)
	Dr. Majid Al-Moharbi	Member
Dr. Riadh Zaier	Member	

Department Curriculum and Timetabling Committee	Dr. Mohammed Khadem	IE Coordinator, Chair
	Dr. Abdullah Al-Janabi	ME Coordinator
	Dr. Amur Al-Yahmadi	Dynamics and Control FGC
	Dr. Ramanathan Arun	Applied Mechanics FGC
	Dr. Nasser Al-Azri	Thermofluids FGC
	Dr. Majid Al-Maharbi	Materials and Manufacturing FGC
	Dr. Mohammed Khadem	Industrial Engineering FGC
Final Year Project (FYP) Coordinators	Dr. Edris Hassan	ME FYP I Coordinator
	Dr. Afzal Husain	ME FYP II Coordinator, Chair
	Dr. Ahm Shamsuzuha	IE FYP Coordinator
Department Postgraduate Studies and Research (DPGSR) Committee	Dr. Khalid Al-Zebdeh	IE PGR Coordinator , Chair
	Dr. Majid Al-Moharbi	ME PGR Coordinator
	Dr. Mojtaba Ghodsi	Member
	Dr. Nabeel Al-Rawahi	Member
Department Publications/ web Committee	Prof. Sabah Al-Sulaiman	Chair
	Dr. Abdullah Ozer	ME Coordinator
	Dr. Ibrahim Garbie	IE Coordinator
	Mr. Mohammed Al-Lawati	Member
Department Recruitment Committee	Dr. Abdullah Al-Shabibi	Chair
	Dr. Nabeel Al-Rawahi	Member
	Dr. Zahid Qamar	Member
	Dr. Nasser Al-Azri	Member
	Dr. Nasr Al-Hinai	Member
	Dr. Mahmoud Al-Kindi	Member

Department Board	Dr. Nabeel Al-Rawahi	Chair
	Dr. Khurshid Alam	Secretary
	Dr. Mahmoud Al-Kindi	IE program coordinator
	All Academic Staff	Members
	Eng. Mohamed Al-Hadhrami	Invited Member
	Mr. Faisal Al-Khatri	Invited Member
Department Lab/HSE Committee	Dr. Ramanathan Arun	Chair
	Dr. Ibrahim Garbie	Member
	Dr. Khurshid Alam	Member
	Dr. Musaab Abdalla	Member
	Dr. Ahm Shamsuzzoha	Member
	Eng. Mohamed Al-Hadhrami	Member
	Mr. Faisal Al-Khatri	Member
Industrial Advisory Board (IAB)	Dr. Nabeel Al-Rawahi	Chair
	Prof. Jamil Abdo	Coordinator
	Prof. Tasneem Pervez	Member
	Dr. Zahid Qamar	Member
	Dr. Mahmoud Al-Kindi	Member
	Dr. Chefi Triki	Member
	Dr. Khaled Al-Zebdeh	Member
Student Societies Advisors	Dr. Chefi Triki	IES Advisor
	Dr. Edris Hassan	SME Advisor
Student-Staff Liaison Committees (ME and IE)	Dr. Nabeel Al-Rawahi	Chair
	Dr. Abdullah Al-Janabi	ME Coordinator
	Dr. Mohammed Khadem	IE Coordinator
	2 Students per cohort per program	Members
Social Activities Committee	Dr. Nasr Al-Hinai	Chair
	Dr. Abdullah Al-Janabi	Member

Department Strategic Planning Committee	Prof. Jamil Abdo	Chair
	Dr. Zahid Qamar	Coordinator
	Dr. Nabeel Al-Rawahi	Member
	Prof. Tasneem Pervez	Member
	Dr. Nasser Al-Azri	Member
	Dr. Mohammed Khadem	Member
Industrial Training and Alumni Committee	Dr. Mahmoud Al-Kindi	Member
	Dr. Majid Al-Moharbi	Chair
Textbook and Library Committee	Dr. Khurshid Alam	Member
	Dr. Sujan Piya	IE Coordinator, Chair
Seminar Committee	Dr. Afzal Husain	ME Coordinator
	Dr. Mojtaba Ghodsi	Chair
	Dr. Ramanathan Arun	Member
Academic Advising Committee	Dr. Sujan Piya	Member
	Dr. Amur Al-Yahmadi	Chair
	Dr. Khaled Al-Zebdeh	Member
	Dr. Abdullah Al-Shabibi	Member
Continuous Assessment and Evaluation Committee -Mechanical Eng. Program (CAEC-ME)	Dr. Chefi Triki	Member
	Dr. Amur Al-Yahmadi	Chair
	Dr. Nabeel Al-Rawahi	Member
	Prof. Jamil Abdo	Member
	Dr. Zahid Qamar	Member
	Dr. Nasser Al-Azri	Member
Continuous Assessment and Evaluation Committee -Industrial Eng. Program (CAEC-IE)	Dr. Ramanathan Arun	ME Coordinator
	Dr. Nasr Al-Hinai	Chair
	Dr. Mahmoud Al-Kindi	Member
	Dr. Mohammed Khadem	Member
	Dr. Khalid Al-Zebdeh	Member
	Dr. Sujan Piya	Member

UNDERGRADUATE STUDIES



Courses

Table D3: Courses Offered in Spring 2016

Code	Title	Instructor(s)
MEIE2102	Statics	Dr. Khurshid Alam Alam
PNGE2102	Basic Mechanics	Dr. Nasr Al-Hinai
MEIE2129	Basic Mechanics	Dr. Abdullah Ozer
MEIE2181	WorkShop II	Mr. Mohammad Al-Hadrami
MEIE2289	Fundamentals of Innovation and Entrepreneurship	Dr. Mahmood Al-Kindi
MEIE3102	Solid Mechanics	Dr. Abdullah Al-Shabibi
MEIE3107	Drawing and Computer Graphics	Mr. Hilal Al-Ismaili
MEIE3109	Product Design	Dr. Arunachalam Ramanathan
MEIE3121	Dynamics	Dr. Abdullah Ozer
MEIE3121	Dynamics	Dr. Riadh Zaier
MEIE3122	Machine Dynamics	Dr. Mojtaba Ghodsi
MEIE3142	Thermodynamics II	Dr. Abdullah Al-Janabi
MEIE3159	Thermofluids	Dr. Nabeel Al-Rawahi

Code	Title	Instructor(s)
MEIE3161	Materials Science	Dr. Sayyad Qamar
MEIE3181	Electromechanical Systems	Dr. Issam Bait Bahadur
MCTE3230	Properties and Strength of Materials	Dr. Khurshid Alam Alam
MEIE3271	Methods of Operations Research	Dr. Chefi Triki
MEIE3281	Probability and Statistics for Engineers	Dr. Sujan Piya
MEIE3292	Work System Analysis and Design	Dr. Ibrahim Garbie
MEIE4102	Machine Design I	Dr. Edris Hassan
MEIE4122	Engineering System and Control	Dr. Musaab Zarog
MEIE4141	Fluid Mechanics	Dr. Abdullah Al-Janabi
MEIE4144	Heat Transfer	Prof. Sabah Al-Suleiman
MCTE4150	Modeling and Simulation	Dr. Amur Al-Yahmedi
MEIE4161	Engineering Materials	Dr. Majid Al-Maharbi
MEIE4183	Numerical Methods for Engineers	Dr. Nasser Al-Azri
MEIE4191	ME Seminar	Mr. Mohammed Al-Lawati
MEIE4192	Computer Applications in Mechanical Engineering	Mr. Mohammed Al-Lawati
MEIE4198	Mechanical Engineering Seminar II	Mr. Mohammed Al-Lawati
MEIE4201	Ergonomics and Safety	Dr. Mohammad Khadem
MEIE4224	Quality Engineering and Six Sigma	Dr. Sujan Piya
MEIE4250	Operations Research	Dr. Chefi Triki
MEIE4262	Manufacturing Processes	Dr. Edris Hassan
MEIE4272	Simulation Models	Dr. Mohammad Khadem
MEIE4275	Facilities Design and Logistics	Dr. Ibrahim Garbie
MEIE4283	Engineering Ethics	Dr. Khalid Al-Zebdeh
MEIE4285	Engineering Economics	Dr. Khalid Al-Zebdeh
MCTE4298	Mechatronics Engineering Seminar I	Mr. Mohammed Al-Lawati
MEIE5121	Modelling and Simulation of Engineering Systems	Dr. Amur Al-Yahmedi
MEIE5132	Smart materials and Structures	Dr. Mojtaba Ghodsi
MCTE5142	Robotics	Dr. Riyadh Zaier

Code	Title	Instructor(s)
MEIE5148	Desalination	Dr. Sulaiman Al-Obeidani
MEIE5149	Capstone Design	Prof. Jamil Abdo
MEIE5162	Corrosion Engineering	Dr. Majid Al-Maharbi
MEIE5193	Project I	Dr. Edris Hassan
MEIE5194	Project II	Dr. Afzal Husain
MEIE5224	Six Sigma Methodology	Dr. Mahmood Al-Kindi
MEIE5233	Maintenance and Reliability Engineering	Dr. Ahm Shamsuzuha
MEIE5262	Industrial System Design	Dr. Ibrahim Garbie
MEIE5273	Product Design and Manufacturing	Dr. Nasr Al-Hinai
MEIE5286	Supply Chain Management	Dr. Ahm Shamsuzuha
MEIE5288	Innovation and Entrepreneurship	Dr. Mahmood Al-Kindi
MEIE5292	IE Project I	Dr. Ahm Shamsuzuha
MEIE5292	IE Project II	Dr. Ahm Shamsuzuha
MEIE5295	Seminar	Mr. Mohammed Al-Lawati

Table D4: Courses Offered in Fall 2016

Code	Title	Instructor(s)
MEIE2102	Statics	Dr. Abdullah Al-Shabibi
MEIE2129	Basic Mechanics	Dr. Musaab Zarog
MEIE2181	WorkShop II	Mr. Mohammad Al-Hadrami
MEIE3102	Solid Mechanics	Dr. Tasneem Pervez
MEIE3107	Drawing and Computer Graphics	Mr. Hilal Al-Ismaili
MEIE3107	Drawing and Computer Graphics	Dr. Khurshid Alam
MEIE3109	Product Design	Dr. Arunachalam Ramanathan

Code	Title	Instructor(s)
MEIE3121	Dynamics	Dr. Amur Al-Yahmedi
MEIE3122	Machine Dynamics	Dr. Abdullah Ozer
MEIE3141	Thermodynamics I	Dr. Nasser Al-Azr
MEIE3141	Thermodynamics I	Dr. Nabeel Al-Rawahi
MEIE3141	Thermodynamics I	Prof. Sabah Al-Sulaiman
MEIE3161	Materials Science	Dr. Majid Al-Maharbi
MEIE3181	Electromechanical Systems	Dr. Issam Bahadur
MEIE3269	Mathematics of Linear Programming	Dr. Chefi Triki
MEIE3281	Probability and Statistics for Engineers	Dr. Khalid Al-Zebdeh
MEIE3284	Industrial Information System Design	Dr. Mohammad Khadem
MEIE3292	Work System Analysis and Design	Dr. Ibrahim Garbie
MEIE4101	Computer Aided Machine Design	Dr. Edris Hassan
MEIE4102	Machine Design I	Prof. Jamil Abdo
MEIE4122	Engineering System and Control	Dr. Morteza Mohammadzaheri
MEIE4125	Instrumentation and Measurement	Dr. Mojtaba Ghodsi
MEIE4141	Fluid Mechanics	Dr. Abdullah Al-Janabi
MEIE4161	Engennering Materials	Dr. Majid Al-Maharbi
MEIE4183	Numerical Methods for Engineers	Prof. Sabah Al-Sulaiman
MEIE4191	ME Seminar	Mr. Mohamed Al-Lawati
MEIE4201	Ergonomics and Safety	Dr. Mohammad Khadem
MEIE4218	Advanced Probability and Statistics	Dr. Sujan Piya
MEIE4222	Production Planning	Dr. Nasr Al-Hinai
MEIE4224	Quality Engineering and Six Sigma	Dr. Sujan Piya
MCTE4230	Thermal Sciences	Prof. Sabah Al-Sulaiman
MCTE4255	Mechatronics System	Dr. Riadh Zaier
MEIE4262	Manufacturing Processes	Dr. Sayyad Qamar
MEIE4262	Manufacturing Processes	Dr. Edris Masoud Hassan

Code	Title	Instructor(s)
MEIE4265	Stochastic Optimization	Dr. Chefi Triki
MEIE4285	Engineering Economics	Dr. Khalid Al-Zebdeh
MEIE4298	Seminar I	Mr. Mohammed Al-Lawati
MEIE5110	Applied Finite Element	Prof. Tasneem Pervez
MEIE5122	Applied Multibody Dynamics	Dr. Amur Al-Yahmadi
MEIE5145	Thermal Systems	Dr. Afzal Husain
MEIE5151	Turbomachinery	Dr. Afzal Husain
MEIE5166	Nanotechnology	Dr. Arunachalam Ramanathan
MEIE5190	Special Topics	Dr. Morteza Mohammadzaheri
MEIE5193	Project I	Dr. Edris Hassan
MEIE5194	Project II	Dr. Afzal Husain
MEIE5198	Seminar II	Mr. Mohammed Al-Lawati
MEIE5201	Occupational Safety	Dr. Ahm Shamsuzzoha
MEIE5262	Industrial System Design	Dr. Ibrahim Garbie
MEIE5264	CAD/CAM	Dr. Edris Hassan
MEIE5267	Automation and CIM	Dr. Ahm Shamsuzzoha
MEIE5271	Decision Analysis Models and Applications	Dr. Mahmood Al-Kindi
MEIE5280	Sustainable Mfg Syst	Dr. Ibrahim Garbie
MEIE5287	Project Management	Dr. Nasr Al-Hinai
MEIE5288	Innovation and Entrepreneurship	Dr. Mahmood Al-Kindi
MEIE5291	Project I	Dr. Ahm Shamsuzzoha
MEIE5292	Project II	Dr. Ahm Shamsuzzoha
MEIE5295	Seminar	Mr. Mohamed Al-Lawati



POSTGRADUATE STUDIES

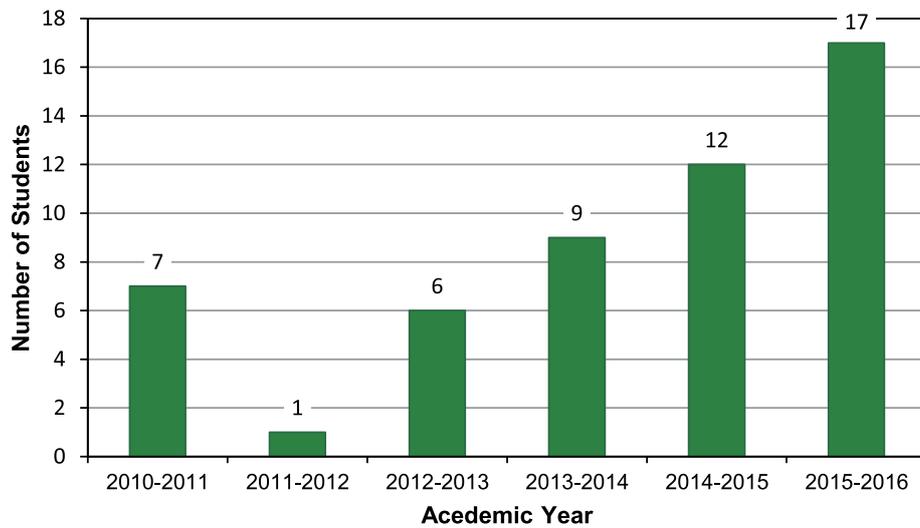


Figure D2: Postgraduate Students' Enrollment for the Past Six Years.

Courses

Table D5: Postgraduate Courses Offered in Year 2016

Semester	Code	Title	Instructor(s)
Fall 2016	MEIE6014	Desalination and Water Treatment. Technology	Dr. Suleiman Al-Obeidani
	MEIE6199	Special Topics in ME	Prof. Tasneem Pervez
	MEIE6111	Advanced Engineering Measurement System	Dr. Issam Bahadur
	MEIE6212	Directed Studies	Dr. Abdullah Al-Shabibi
	MEIE6216	Logistics and Supply	Dr. Ahm Shamsuzzoha
	MEIE7001	Master Thesis	Dr. Abdullah Al-Shabibi
	MEIE8001	PhD Thesis	Dr. Abdullah Al-Shabibi
Spring 2016	MEIE6116	Engineering Fracture Mechanics	Dr. Sayyad Qamar
	MEIE6212	Directed Studies	Dr. Abdullah Al-Shabibi
	MEIE6216	Logistics and Supply Chain Engineering	Dr. Mohammad Khadem
	MEIE6220	Sustainable Industries	Dr. Ibrahim Garbie
	MEIE6911	Engineering Management	Dr. Sujan Piya
	MEIE7001	Thesis	Dr. Abdullah Al-Shabibi
	MEIE8001	PhD Thesis	Dr. Abdullah Al-Shabibi

Postgraduate Students' Projects

Table D6: Students' Projects in Year 2016

No	Student Name	Project Title
1	Omar Al-Abri (PhD)	Experimental Investigation and Constitutive Modeling of Expandable Tubular Material at Multi Levels of Materials and Mechanics
2	Moosa Al-Kharousi (PhD)	Multiscale Modeling of Carbon Nanotube-based Nanocomposites using Computational Mechanics Approach
3	Hani Al-Rawahi	Evaluation of Mechanical and Manufacturing Parameters of Flaked Date Palm Fronds Reinforced Polypropylene Composites
4	Mahmoud Nassar	Analysis of Mechanical Properties and Machining of Natural Fiber Reinforced Bio-Composites: A Comparative Study
5	Ali Khodaei	Modeling and Optimization of Organic Rankine Cycle (ORC) Using Generalized Property Correlations

RESEARCH



Grants and Contracts

Table D7: New Grants, Contracts and Consultancies by Faculty Members in Year 2016

Research Title	Principal Investigator(s)	Budget (OMR)	Funded by
Structural Vibration Control Using Magnetostrictive Actuators	Dr. Abdullah Ozer	7,350	SQU
Measurement of Product Modularity Degree to Scale Up Family of Product for Achieving Competitive Advantage: Perspectives From Selected Omani Small and Medium Enterprises	Dr. Ahm Shamsuzzoha	6,675	SQU
A Mercury-Free, Piezo-Assisted Micro-Cutter for Embryo Biopsy	Dr. Issam Bahadur	8,500	SQU
Experimental and Numerical Study of Bone Drilling	Dr. Khurshid Alam	8,500	SQU

Research Title	Principal Investigator(s)	Budget (OMR)	Funded by
Development of Fishing Trap Degradable Device for Prevention/Reduction of Ghost Fishing in Oman	Prof. Jamil Abdo	22,000	Marine Science and Fisheries Center (MSFC), Oman in collaboration with the Industrial Innovation
Facilitate Extended Reach Drilling Operation by Nano-Enhanced Drilling Fluids for Improved Hydrocarbon Recovery	Prof. Jamil Abdo	300,000	Qatar Foundation
Shell Eco Marathon II	Dr. Abdullah Al-Shabibi	12,000	SQU-Shell Oman
E-Logistics: Optimizing the Ridesharing within a Large Organization Community	Dr. Chefi Triki	8,600	AIAP-SQU
A Novel GelMA Hydrogel Based Microfluidic Blood-Brain Barrier Model for in vitro Neuro-Diseases and Cancer Metastasis Study	Dr. Khurshid Alam	360,000 USD	GCC Fund
Mechanical and Chemical Investigation of Sucker Rod's Failures	Dr. Majid Al-Moharbi	14,000	PDO
Development of Energy Harvesting System for Vibrational Structures	Dr. Mojtaba Ghodsi	30,000	SQU-UAEU
Enhanced Prototype Design and Fabrication of a Foot Drop Stimulator Device for Locomotion Control	Dr. Riadh Zaier	131,250	TRC
Tensile-Compressive and Collapse Evaluation of PVC Pipes	Dr. Zahid Qamar	40,310	PDO

Publications

Refereed Journal Papers

1. Abdo, J., Sharji, H. and Hassan, E. 2016. Improved Tribological Properties of Drilling Fluids at HTHP Conditions Using Nano-Sepiolite. *Surface and Interface Analysis*, 48(7):522-526.
2. Abdul-Wahab, S.A., Al-Hajri, A. and Yetilmezsoy, K. 2016. Impact of the Ambient Air Quality due to the Dispersion of Non-Methane Organic Compounds from Barka Landfill. *International Journal of Environmental Science and Technology*, 13(4):1099-1108.
3. Abdul-Wahab, S.A., Al-Husaini, I., Ahamad, R., Yetilmezsoy, K. and Abdo, J. 2016. Study of Heavy Metal Levels in Seawater in the Vicinity of Single Buoy Moorings at Mina Al Fahal, Sultanate of Oman. *Environmental Forensics*, 17(3):203-210.
4. Abdul-Wahab, S.A., Al-Rawas, G.A., Ali, S. and Al-Dhamri, H. 2016. Assessment of Greenhouse CO₂ Emissions Associated with the Cement Manufacturing Process. *Environmental Forensics*, 17(4):338-354.
5. Abdul-Wahab, S.A., Al-Rawas, G.A., Ali, S. and Al-Dhamri, H. 2016. Impact of the Addition of Oil-Based Mud on Carbon Dioxide Emissions in a Cement Plant. *Journal of Cleaner Production*, 112(5):4214-4225.
6. Abdul-Wahab, S.A., Ikhile, E., Ahmadi, L., Elkamel, A. and Yetilmezsoy, K. 2016. Radon in the Indoor Environment. *Fresenius Environmental Bulletin*, 25(10):4409-4438.
7. Abdul-Wahab, S.A., Ikhile, E., En, S.C.F., Elkamel, A., Ahmadi, L. and Yetilmezsoy, K. 2016. Modeling the Dispersion of NO_x and SO₂ Emissions from a Proposed Biogas Producing Facility. *Global NEST Journal*, 18(4):674-689.
8. Afzal, H., Al-Azri, N. 2016. Performance Analysis of Multiple Micro-Jet Impingements Cooling Model. *The Journal of Engineering Research*, 13(1):58-71.
9. Al-Abri, O.S., Pervez, T., Al-Maharbi, M.H., and Khan, R. 2016. Microstructure Evolution of Ultra-Fine Grain Low-Carbon Steel Tubular Undergoing Radial Expansion Process. *Materials Science and Engineering A*, 654:94-106.
10. Al-Abri, O.S., Pervez, T., Qamar, S.Z. and Khan, R. 2016. On the Performance Analysis of AHSS with an Application to SET Technology – FEM Simulations and Experimental Measurements. *Thin-Walled Structures*, 101:58-74.
11. Alam, K. 2016. Exploring Thermal Anisotropy of Cortical Bone using Temperature Measurements in Drilling. *Bio-Medical Materials and Engineering*, 27(1):39-48.

12. Alam, K., Hassan, E., Imran, S.H. and Khan, M. 2016. In-Vitro Analysis of Forces in Conventional and Ultrasonically Assisted Drilling of Bone. *Bio-Medical Materials and Engineering*, 27(1):101-110.
13. Al-Azri, N. 2016. Development of a Typical Meteorological Year Based on Temperature and Humidity for Passive Cooling Applications. *Energy for Sustainable Development*, 33:61-74.
14. Al-Ismaili, A. and Al-Azri, N. 2016. Simple Iterative Approach to Calculate Wet-Bulb Temperature for Estimating Evaporative Cooling Efficiency. *International Journal Agriculture Innovations and Research*, 4(6):2319-1473.
15. Al-Kharousi, M., Al-Zebdeh, K. and Pervez, T. 2016. An Atomistic-based Continuum Modelling for Evaluation of Effective Elastic Properties of Single-Walled Carbon Nanotubes. *Journal of Nanomaterials*, Article ID 8641954, 2016:1-13.
16. Al-Kindi, M., Al-Lawati, M. and Al-Azri, N. 2016. Estimating Drilling Cost and Duration using Copulas Dependencies Models. *The Journal of Engineering Research*, 14(1):1-9.
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15. Qamar, S.Z. and Pervez, T. 2016. *E Longevity Test Rig for Swellable Elastomers Design; Fabrication; Commissioning; 5-Year Testing*. Final Report, Petroleum Develop Oman, Sultanate of Oman.
16. Qamar, S.Z. and Pervez, T. 2016. *Final Report: Longevity Test Rig for Swellable Elastomers: Design, Fabrication, Commissioning, and 5-Year Testing*. Petroleum Development Oman (PDO).
17. Shamsuzzoha, A., Al-Kindi, M. and Al-Hinai, N. 2016. *Measurement of Product Modularity Degree to Scale Up Family of Product for Achieving Competitive Advantage: Perspectives from Selected Omani Small and Medium Enterprises*. Internal Research Grant Technical Report, Sultan Qaboos University, Sultanate of Oman.
18. Zaier, R. 2016. *Central Pattern Generator*. External Research Grant (RC/ENGMIED/15/03) Technical Report, Sultan Qaboos University, Sultanate of Oman.
19. Zaier, R. 2016. *Kinematics and Dynamics of Biologically Inspired Mechanical Leg*. External Research Grant (RC/ENGMIED/15/03) Technical Report, Sultan Qaboos University, Sultanate of Oman.

OTHER ACTIVITIES



Short Courses

1. Al-Azri, N., Refrigeration and Air Conditioning: Fundamentals and Applications: An Industrial Training Course, Sultan Qaboos University, 25-29 December 2016.
2. Al-Azri, N., Solar Energy for Cooling: A Short Training Course in Collaboration with the Independent Learning Center at Sultan Qaboos University, 9-12 October 2016.
3. Al-Azri, N., Solar Energy for Cooling, A Short Training Course in Collaboration with the Independent Learning Center at Sultan Qaboos University, 6-8 March 2016.
4. Zaier, R., and Mojtaba, G., Short Course on Instrumentation and Data Acquisition Systems, Control Systems and Relevant Programming to Technical Staff from the Department of Soils, Water and Agricultural Engineering, College of Agricultural and Marine Sciences, 29 May -2 June 2016.

Invited Talks

1. Abdul-Wahab, S.A., Invited as Speaker in The 63rd IIER International Conference. International Conference on Natural Science and Environment (ICNSE-16). Organized by the International Institute of Engineers and Researches (IIER), Phuket, Thailand, 28 February 2016.

2. Abdul-Wahab, S.A., Invited as Speaker in The Annual Research Meet-ARM 2016. Organized by the Centre for Advanced Research and Design-CARD of Venus International Foundation, Chennai, India, 3 December 2016.
3. Abdul-Wahab, S.A., Invited as Speaker in The Regional Meeting of the Global Research Council (GRC) in the Mena Region. Organized by The Research Council, Muscat, Oman, 10-11 January 2016.
4. Al-Azri, N., Invited speech on Optimal Design Configuration of an ORC using Waste Heat and Solar Energy in Hot Arid Areas at the Internal Grant Research Forum at Sultan Qaboos University, Muscat, Oman, 19 December 2016.
5. Arunachalam, R., Developing Innovative Concepts for Products – A Bird’s Eye View, Design for Innovative Products, CCE ASME Student Chapter, April 24th, 2016, Caledonian College of Engineering, Muscat, Oman, 24 April 2016.
6. Arunachalam, R., How can we Make our Students Employable? Mahendra International Lecture Series, Mahendra Engineering College, Namakkal, India, 20 July 2016.
7. Husain, A., Micro-Scale Heat Transport in Electronics Cooling: How Far We have reached? In: International Conference on Recent Advances in Mechanical Engineering RAME-2016, DTU New Delhi, India, 14-15 October 2016.
8. Khadem, M., Accreditation, PEOs, and Continuous Improvement-Global Engineering Education, International Conference on Industrial Engineering and Operations Management, Detroit, Michigan, USA, 23-25 September 2016.
9. Pervez T., A Researcher Perspective on Interdisciplinarity, Regional Meeting of the Global Research Council (GRC) in the MENA Region, Muscat, Oman, 10-11 January 2016.
10. Pervez T., How to Secure and Manage Funded Research Projects? Caledonian College of Engineering, 24 November 2016.
11. Qamar, S.Z., Product Defects in Commercial Aluminum Extrusion: Review and Analysis,” Keynote Address, International Conference on Advances in Materials and Processing Technologies (AMPT 2016), Kuala Lumpur, Malaysia, 8-11 November 2016.
12. Qamar, S.Z., Performance Analysis of Swelling Elastomers in Petroleum Applications: Elastomer Testing and Characterization at Sultan Qaboos University, Keynote Address, 8th International Conference on Materials Science and Engineering (IMS 8), American University of Sharjah, Sharjah, UAE, 2-4 February 2016.
13. Qamar, S.Z., Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction

of Die Life,” Invited Paper, 17th International Conference on Applied Mechanics and Mechanical Engineering (AMME-2016), Military Technical College, Cairo, Egypt, 19-21 April 2016.

14. Triki, C., Combinatorial Auctions for the Procurement of Transportation Services for the Petrol Distribution. 12th International Industrial Engineering Conference, Tehran-Iran, 25-26 January 2016.
15. Triki, C., Combinatorial Auctions for the Transportation E-Procurement in Modern Logistics Systems, Modern College of Business and Science, Invited Seminar, Muscat-Oman, 30 March 2016.
16. Triki, C., Generating Bids in Combinatorial Auctions for the Procurement of Transportation Lanes, University of Tsukuba, Invited seminar, Tsukuba-Japan, 19 June 2016.
17. Triki, C., The Importance of Synergy in Transportation Networks, Polytechnical University of Hong Kong, Invited seminar, Hong Kong, 19 August 2016.

Cooperation with Local and Foreign Organizations

1. Alam, K., Bone cutting, Collaboration with Prof. Vadim Silberschmidt (UK), Prof. Naseer Ahmed (KSA) and Dr. Mushtaq Khan (Pakistan).
2. Al-Janabi A., Thermal Performance of Exhaust Gas Recirculation Cooler (EGR) under Variable Operating Conditions, Collaboration with Institute of the Institute of Thermodynamics and Thermal Engineering (ITW), Stuttgart University, (Germany).
3. Al-Zebdeh, K., Collaboration with Subhi Nasr, Department of Earth Science, College of Science, Sultan Qaboos University, on project “Geological Exploration and Geotechnical Assessment of the Exotic Limestone as Dimension Stone Resources in Oman”, High Majesty Grant, 2015-2017.
4. Al-Zebdeh, K., Collocation with Uwe Kruger, Department of Biomedical Engineering, Jonssen Engineering Centre, Rensselaer Polytechnic Institute project “Advanced Multivariate Statistical Modelling and Model Analysis of the Elastic Behaviour in Random Composite Materials”, Internal Grant, Sultan Qaboos University, 2014-2016.
5. Husain A., Electronics cooling, Collaboration with Mr. Mohd. Zunaid (India).
6. Husain A., Fluid machinery analysis, Collaboration with Dr. Abdus Samad (India).
7. Husain A., Micro-scale cooling enhancement techniques, Collaboration with Dr. Ansari, M.Z. (India).
8. Husain A., Micro-scale mixing analysis, Collaboration with Dr. Ansari, M.A. (India).

9. Husain A., Numerical Analysis Visualization and Experimental Measurements of Capillary-Driven Blood Flow Micro-Channel Mixing, Collaboration with Dr. Hamdan, O.M. (UAE).
10. Husain A., Numerical Analysis Visualization and Experimental Measurements of Capillary-Driven Blood Flow Micro-Channel Mixing, Collaboration with Dr. Elnajjar, E. (UAE).
11. Ozer, A., Robotic Manufacturing Processes, Collaboration with Dr. Akio Sekiguchi (Japan).
12. Shamsuzzoha, A., Measurement of Product Modularity Degree to Scale up Family of Product for Achieving Competitive Advantage: Perspectives From Selected Omani Small and Medium Enterprises, Collaboration with Prof. Helo, P. (Finland) and Mr. Kankaanpaa, T. (Finland).

Students' Activities/Awards

1. Abdul-Wahab, S.A. The Lifetime Achievement Award for 2016 from Venus International Foundation in the Field of Environmental Engineering, India, Chennai, 3 December 2016.
2. Al-Hinai, N. Distinguished Teaching Excellence Award, College of Engineering, University Day, Sultan Qaboos University, 2 May 2016.
3. Mohammadzaheri, M. Best Paper Award amongst 586 submitted papers to the First International Conference on New Research Achievements in Mechanics, Mechatronics and Biomechanics, Tehran, Iran. Title of the project: "Fault Detection of an Automobile Cylinder Block through Intelligent Analysis of Modal Information", May 2016.
4. Supervisor: Abdullah Al Shabibi, Mojtaba Ghodsi, Students: Tariq al-Subhai, Ahmed Al-Hadrami, Salem Al-Mahrizi, Tamer Al-Siabi: First Place The best FYP in Mechanical and Industrial Engineering Department. Title of the project: "ECO-Shell 2016", July 2016.
5. Supervisor: Abdullah Al-Janabi, Students: Ghassan Al-Hajri, Tariq Al-Maashani. Oman Energy and Water Exhibition and Conference, Poster session, Sultanate of Oman, Muscat. Title of the project: "Converting Industrial Waste Power: Performance and Potential", May 2016.
6. Supervisor: Issam Bait Bahadur, Students: Nasser Al Bousafi, Shaas Al Rawahi, Zekariya Al Jabri, Faiz Al Rawahy, and Abdul Al Maskari: Innovation Cup (Organized by The Academic Innovation Assistance Program (AIAP) at SQU). Title of the project: "Design and Development of Civil Construction Meter-Scale 3D Printer", 2016.
7. Supervisor: Sujana Piya, Students: Abdulwahab Al- Maimani, Rashid Al-Hasani, Amur Al-Mamari: First Place at the Senior Design Project Competition (The 6th International conference on Industrial Engineering and

Operations Management, Malaysia. Title of the project: “Designing Personalized Tourism Packages for Oman Tourism Industry”, 8-10 March 2016.

- Supervisors: Ashraf Saleem, Mostefa Mesbah and Edris Hassan, Students: Mazoon Al Maamari, Salma Al Badi, 2nd Place in GCC-wide Student Design Competition during the 7th GCC Engineering Gathering. The award was given to the student team for the Senior Design Project. Title of the Project: “Design of a Brain Controlled Hand Exoskeleton for Patients with Motor Neuron Diseases”, April 2016.
- Supervisors: Jamil Abdo and Edris Hassan, Students: Khalid ALHattali, Mahmood ALKhatri, Yousuf ALGhafri, Abdulrahman ALGhafri, and Hisham ALSalami, 3rd Place in GCC-wide Student Design Competition during the 7th GCC Engineering Gathering. The award was given to the student team for the Senior Design Project. Title of the Project: “Design and Construction of Composite Pipeline Testing Setup”, April 2016.

Additional Activities

- Abdul-Wahab, S.A., Chair Session of Thermo-Fluids Engineering 3. The International Conference on Applied Mechanics and Industrial Systems (ICAMIS). Sultanate of Oman, Sultan Qaboos University, Department of Mechanical and Industrial Engineering, 6-8 December 2016.
- Abdul-Wahab, S.A., Chair Session of Water Scarcity: The Great Challenge. The 12th Annual Meeting of the Arab Regional Office for the World Academy of Sciences (TWAS-ARO): Sustainability in Food and Water: An Arab Viewpoint. Organized by Bibliotheca Alexandrina (Alexandria, Egypt) and the Arab Open University (Amman, Jordan). Under the Patronage of HRH Prince El-Hassan bin Talal, Jordan, 18-19 December 2016.
- Abdul-Wahab, S.A., Technical Session Chair in the 63rd IIER International Conference: International Conference on Natural Science and Environment (ICNSE-16). Organized by the International Institute of Engineers and Researches (IIER), Phuket, Thailand, 28 February 2016.
- Alam K., Instructor, workshop on How to Design Effective Poster at Majan College Muscat, 2016.
- Al-Azri, N., Training in Solar radiation- 4th Edition, Mines Paris Tech and Transvalor S. A., Sophia Antipolis, France, 27-29 January 2016.
- Al-Hinai, N., Associate Editor of The Journal for Engineering Research at SQU, 2016.
- Al-Hinai, N., Military Technical College, Advisory Board Member, (Oman), 2016.
- Al-Janabi A., Attending the ‘Start-up Oman’ A joint project of TRC and SQU workshop, Muscat, Oman, 8-9 February 2016.

9. Al-Janabi A., Attending the Introduction to CDIO Initiative workshop, SQU, Muscat, Oman, 17-19 May 2016.
10. Al-Janabi A., Attending the Training program/workshop on ANSYS, 21-25 February 2016.
11. Al-Janabi A., Conduct a seminar on engineer and his applications for Kids, Child Care Center, Early Childhood Education Department, College of Education, SQU, Oman, 6 January 2016.
12. Al-Janabi A., Invited to attend the Oman Desalination Research Network (OMDEREN) workshop, at Middle East Desalination Research Center (MEDERC), Oman, Muscat, 27 April, 2016.
13. Al-Janabi A., Invited to attend the Oman Desalination Research Network (OMDEREN) workshop, at Middle East Desalination Research Center (MEDERC), Oman, Muscat, 27 April, 2016.
14. Al-Janabi A., Invited to attend the Water and Energy Research Symposium, SQU, Muscat, Oman, 1-17, March 2016.
15. Al-Janabi A., Session Chair. International Conference on Applied Mechanics and Industrial Systems, Muscat, Oman 6-8 December 2016.
16. Ghodsi, M., Zaeir, R., Coordinating of a Training Program for Department of Soil, Water and Agricultural Engineering, Instrumentation and data acquisition systems, control systems and relevant Programming, Oman, July 2016.
17. Hassan, E.M., Contributed in organizing the 7th Gulf Cooperation Council (GCC) Students Design Gathering and Competition, 6-8 April, 2016.
18. Hassan, E.M., Judged the “Boat Challenge”, Design Competition organized by Society of Mechanical Engineering 2016.
19. Hassan, E.M., organized and helped running 40 hours training program on SolidWorks Essentials for College of Engineering faculty members and technical staff in collaboration with CAD/CAM/CIM, UAE.
20. Hassan, E.M., ran 4 seminars on Report Writing and Referencing, Academic Integrity and Plagiarism to FYP students.
21. Hassan, E.M., Supervised the “4th Dimension Exhibition” organized by Society of Mechanical Engineering, from 11-13 April, 2016.
22. Husain, A., Coordinated Final Year Project (FYP) Design Competition 2016 in collaboration with Industrial Advisory Board, Mechanical and Industrial Engineering, Sultan Qaboos University.
23. Nasr Al-Hinai, Supervising IE society project, Advance child Car Seat System and Lifesaver Water Bottle, September 2015 - 2016.

24. Ozer, A., ACENS International Committee Board Member, Fukuoda, Japan, February, 2016.
25. Qamar, Z., ABET Accreditation: Why, What, How, Student seminar, MIE Dept, SQU, September 2016.
26. Qamar, Z., Metalforming of Aluminum Products: Overview, Industrial Projects, Student Projects, Student seminar, MIE Dept, SQU, February 2016.
27. Qamar, Z., Modern Manufacturing Techniques, Supervision of student seminar and report, MIE Dept, SQU, Fall-2016.
28. Qamar, Z., Shape Complexity in Metal Extrusion, Supervision of student seminar and report, MIE Dept, SQU, Spring 2016.
29. Qamar, Z., University Teaching and Learning: Personal Experience and Perspective, Faculty seminar, MIE Dept, SQU, March 2016.
30. Shamsuzzoha, A., Gave two seminars to final year project (FYP) students on Introduction to FYP and Report writing and referencing, 21 September 2016 and 24 October 2016.
31. Shamsuzzoha, A., Graduate/postgraduate Student Paper Competition Chair, The 2016 International Conference on Industrial Engineering and Operations Management, Detroit, Michigan, USA, 23-25 September 2016.
32. Shamsuzzoha, A., Graduate/postgraduate Student Paper Competition Chair, 6th International Conference on Industrial Engineering and Operations Management (IEOM 2016), Kuala Lumpur, Malaysia, 8-10 March 2016.
33. Shamsuzzoha, A., International Program Committee Member, 13th International Conference on e-Business (ICE-B-2016), 26-28 July, 2016 at Lisbon, Portugal, 9 May 2016.
34. Shamsuzzoha, A., International Program Committee Member, 18th International Conference on Enterprise Information System (ICEIS 2016), Rome, Italy, 25-28 April 2016.
35. Shamsuzzoha, A., Technical Committee Member, 2nd International Conference on Innovation and Industrial Logistics, Lucerne, Switzerland, 6-8 July 2016.
36. Triki, C., Nominated as fellow of the "Matsumae International Foundation" and winner of its scholarship program for a 3-month research visit to the University of Tsukuba, Japan, 2016.
37. Zaier, R., Focal person for LoU with Honeywell and SQU, 2016.
38. Zaier, R., Focal person for the Agreement on Academic Cooperation between Cluster of Mechatronic and Automation, Bavaria, Germany and SQU, 2016.







Petroleum and Chemical Engineering



SUMMARY

The Department of Petroleum and Chemical Engineering (PCED) in the College of Engineering at Sultan Qaboos University was established in 1986 under the name of Petroleum and Mining Engineering. Considering the country's industrial development, the Department thereafter underwent several transformations to meet the job market. In 2003, a comprehensive self-study led to two independent undergraduate degree programs in Petroleum and Natural Gas Engineering (PNGE) and Chemical and Process Engineering (CHPE). Currently, Graduate degree program at both Master and Doctorate levels are offered in both CHPE and PNGE majors. In 2006, Petroleum and Natural Gas Engineering Program was substantially accredited by the Accreditation Board of Engineering and Technology (ABET). In 2008, Chemical and Process Engineering was accredited by ABET. In 2013, a visit by ABET team led to another successful accreditation cycle for both programs in August 2014. The Department aims at providing a comprehensive state-of-the-art education for its students and thus equipping the students with essential skills needed to prepare them for the challenging highly competitive job market in the Petroleum/Chemical sectors.

This is achieved through a progressive sequence of subjects well-tailored to build a deep and sound understanding of the principles of engineering, emphasizing reasoning and engineering application in problem solving. All the programs are solidly constructed, with an excellent technology base, to provide sound and internationally acclaimed engineering education. The programs were designed in such a way to allow broad perspective, engendering social, cultural, ethical components, all combined to produce the engineer who is well aware of his/her leading role in the community.



The Department houses highly qualified and active academic staff in teaching and research. In addition, the Department is supported by strong technical staff. The Department has several educational and research laboratories that support the undergraduate and graduate teaching and research. The faculty publications included 53 refereed journal articles, 1 book, 1 book chapter, 23 full conference proceedings papers, 6 technical reports, and 6 newly approved research grants.

During the year 2016, the faculties of the Department of Petroleum and Chemical Engineering offered several professional short courses and invited talks, organized and delivered several training workshops and seminars. Recently, Dr. Mohammad Usman has joined the Department as an Assistant Professor.

The research in the Department covers many areas such as enhanced oil recovery, wastewater treatment, green engineering, modeling and control, CO₂ capture, process optimization, desalination, multiphase flow, mineral resources, reservoir simulation, rock mechanics and reaction engineering.



Table E1: Summary

	2015	2016
Faculty	21	22
Support staff	9	9
Total	30	31
On-study leave	0	0
Undergraduate Program		
Enrollment	342	315
Courses offered	57	57
Graduates	108	90
Graduate Program		
Enrollment	47	55
Courses offered	18	18
Graduates	15	12
Research		
Grants (Newly approved)	6	6
Publications		
Refereed Journals	45	53
Conference Proceedings	17	23





DEPARTMENTAL PROFILE



Dr. Rashid Al-Maamari
Professor and Head of the Department

Research Interests: Enhanced Oil Recovery (Chemical, Thermal), Treatment and Utilization of Oilfield Produced Water



Dr. Ali Soud Al-Bemani
Associate Professor and Vice Chancellor of Sultan Qaboos University

Research Interests: Well Testing, Reservoir Engineering, Rock and Fluid Properties, Water Flooding, EOR, PVT, Formation Damage Studies and Computer Application in Petroleum Engineering



Dr. Abdul Aziz R. Al-Hashmi
Associate Professor

Research Interests: Polymer Enhanced Oil Recovery, Polymer Flow and Retention in Porous Media, Use of High Molecular Weight Polymers in Oil Field Applications, Water Conformance/Control from the Oil and Gas Wells, Polymer Rheology



Dr. Adel M. Al-Ajmi
Associate Professor

Research Interests: Rock Mechanics, Petroleum Engineering



Dr. Ala'a Al-Muhtaseb
Associate Professor

Research Interests: Biofuel Production from Bio-Waste, Fuel and Environment, Wastewater Treatment



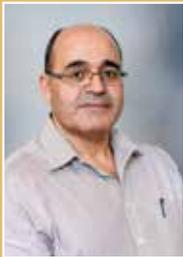
Dr. Farouq Sabri Mjalli
Associate Professor

Research Interests: Ionic Liquids and Deep Eutectic Solvents Applications as Green Solvents, Adsorptive Natural Gas Storage using Biomaterials, Application of Advance Model-Based Process Control Strategies, Neural Network Based Modeling and Control



Dr. Gholamreza Vakili-Nejad
Associate Professor

Research Interests: Applied Statistical Thermodynamics, Applied Hydrocarbon Thermodynamics, Characterization of Petroleum Fluids, Nano-Thermodynamics, Nano-Fluids



Dr. Hasan Abdellatif Hasan
Associate Professor

Research Interests: Renewable Energy, Colloid Science, Water Treatment



Dr. Talal K. Al-Wahaibi
Associate Professor and Assistant Dean of Deanship of Research

Research Interests: Multiphase Flow and Separation, Flow and Diffusion in Porous Media, Multiphase Flow and Mixing



Dr. Yahya M. Al-Wahaibi
Associate Professor and Dean, Deanship of Research

Research Interests: Enhanced Oil Recovery with Emphasis on EOR, WAG Injection, Chemical Injection and VAPEX, Ionic Liquids Applications as Green Solvents, Flow and Diffusion in Porous Media, Multiphase Flow and Mixing



Dr. Ashish M Gujarathi
Assistant Professor

Research Interests: Process Optimization, Evolutionary Computation, Modeling and Simulation, Bio-Waste Utilization



Dr. Ghulam Murshid
Assistant Professor

Research Interests: CO₂ Separation via Reactive Absorption (Amines, Amino Acids), Synthesis of MOFs for CO₂ Capture



Dr. Hamoud K. Al-Hadrami
Assistant Professor

Research Interests: Formation Damage, Drilling Engineering, Simulation Modeling, Geological Modeling



Dr. Jamil Naser
Assistant Professor

Research Interests: Environmental Engineering, Water Quality, Green Solvents, Liquid Phase Sintering in Microgravity



Dr. Khalid Hilal Al-Rawahi
Assistant Professor

Research Interests: Mineral Resources, Geology, Economic Analysis, Sustainable Development



Dr. Majid A. Al-Wadhahi
Assistant Professor

Research Interests: Reservoir Simulation, -3Phase Flow in Porous Media, Artificial Neural Network



Dr. Mohammad Al-Abri
Assistant Professor

Research Interests: Desalination, Water Treatment, Nanotechnology, Membrane Technology, Water Quality



Dr. Mohammed Rashid Usman
Assistant Professor

Research Interests: Catalysis, Reaction Engineering



Dr. Omar Houache
Assistant Professor

Research Interests: Production and End Use of New Absorbent for Mercury Removal, Production of Membrane Support using Natural Materials, Chemical Process Safety



Dr. Peyman Pourafshary
Assistant Professor

Research Interests: Production Engineering, Enhanced Oil Recovery, Formation Damage, Fast Reservoir Simulation



Dr. Rashid S. Al-Hajri
Assistant Professor

Research Interests: Engineering of Catalytic Processes for the Synthesis of Intermediates and Fine Chemicals, Modeling of Reaction Kinetics in Laboratory-Scale Catalytic Reactors, Methodologies for Efficient Catalyst Recycle, Chemical EOR



Suaad Salim Hilal Al-Zakwani
Demonstrator

Research Interest: Chemical Engineering



Nasser Mohammed Al-Mandhary
Department Technical Superintendent

Research Interest: Surface Area Analysis



Sabri Salam Al-Khusaibi
Chief Technician C

Research Interest: Rheology



Hamdan Bin Saif Al-Amri
Lab Supervisor B

Research Interests: Rock and Fluid Properties, Drilling Technology



Nayyar Afzal
Lab Supervisor A

Research Interest: Core Flooding-EOR



Mazin Al-Mahrezi
Engineer

Research Interest: Process Control



Salim Ali Al-Mazrui
Lab Supervisor B

Research Interests: Produced Oil Field Water, Cleaning and Utilization



Adel Awadh Al-Rubkhi
Technician B

Research Interest: Chemical EOR



Marycon B. Cordova

Coordinator



Omar Al-Rubaie

Coordinator



DEPARTMENTAL COMMITTEES



Table E2: Departmental Committees

PCED Postgraduate Studies and Research Committee	Dr. Gholamreza Vakili-Nejad (Chair) Dr. Ashish M. Gujarathi Dr. Majid Al-Wadhahi Dr. Hamoud Al-Hadrami
PCED Publication and Web Coordinators	Dr. Ashish M. Gujarathi
PCED Information and Communication Committee	Dr. Adel Al-Ajmi

PCED Curriculum and Accreditation Committee	Dr. Abdulaziz Al-Hashmi (Chair)
	Prof. Rashid Al-Maamari (HoD)
	Dr. Omar Houache
	Dr. Peyman Pourafshary
	Dr. Hamoud Al-Hadrami (PNGE timetabling officer)
PCED Industrial Training Committee (In-House and Summer)	Dr. Jamil Naser (CHPE timetabling officer)
	Dr. Mohammed Al-Abri (Chair)
PCED HSE Committee	Dr. Ala'a Al-Muhatseb
	Dr. Omar Houache (Chair)
	Dr. Farouq Mjalli
	Mr. Nasser Al-Mandhari
PCED Societies Advisors	Mr. Salim Al-Mazrui
	Dr. Adel Al-Ajmi (SPE, SQU)
	Dr. Ala'a Al-Muhatseb (SCHEME)
PCED Staff-Student Liaison	Prof. Rashid Al-Maamari (HoD)
	Dr. Jamil Nasser
	+Two students from each cohort
PCED Strategic Planning and Development Committee	Dr. Farouq Mjalli (Chair)
	Dr. Hasan Abdellatif Hasan
	Dr. Talal Al-Wahaibi
	Dr. Khalid Al-Rawahy
	Dr. Yahya Al-Wahaibi
PCED Book and Library Coordinator	Dr. Ghulam Murshid
	Dr. Muhammad Rashid Usman

PCED Industrial Outreach and Community Services Committee

Dr. Rashid Al-Hajri (Chair)

Dr. Hamoud Al-Hadrami

Dr. Ghulam Murshid

PCED Appointment Committee

Prof. Rashid Al-Maamari (Chair)

Dr. Majid Al-Wadhahi

Dr. Khalid Al-Rawahy

Dr. Omar Houache

Dr. Rashid Al-Hajri

Dr. Gholamreza Vakili-Nejad

PCED Social Activity committee

Dr. Peyman Pourafshary (Chair)

Dr. Ala'a Al-Muhateb

PCED Board Secretary

Dr. Ghulam Murshid



UNDERGRADUATE STUDIES

Courses

Table E3: Courses Offered in Spring 2016

Code	Title	Instructor(s)
CHPE3102	Engineering Thermodynamics	Dr. Ala'a Al-Muhtaseb
CHPE3103	Professional Practice	Dr. Hasan Abdellatif Hasan
CHPE3112	Principles of Chemical Processes	Dr. Jamil Nasser
CHPE3302	Fluid Flow	Dr. Talal Khamis Al-Wahaibi
CHPE3302	Fluid Flow	Dr. Ghulam Murshid
CHPE3402	Heat Transfer	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE4114	Computer Aided Design	Dr. Ashish Gujarathi
CHPE4114	Computer Aided Design	Dr. Ashish Gujarathi
CHPE4192	Chemical Engineering Practice	Dr. Ghulam Murshid
CHPE4402	Natural Gas Processing	Dr. Omar Houache
CHPE4412	Process Heat Transfer	Dr. Gholamreza Vakili-Nejad
CHPE4412	Process Heat Transfer	Dr. Gholamreza Vakili-Nejad

Code	Title	Instructor(s)
CHPE4512	Chemical Reaction Engineering	Dr. Rashid Salim Al-Hajri
CHPE4512	Chemical Reaction Engineering	Dr. Rashid Salim Al-Hajri
CHPE4612	Unit Operation II	Dr. Mohammed Zaher Al Abri
CHPE4612	Unit Operation II	Dr. Mohammed Zaher Al Abri
CHPE4912	Special Topics II	Dr. Ala'a Al-Muhtaseb
CHPE5207	Petroleum Refining	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5212	Chemical Engineering Lab III	Dr. Farouk Sabri Mjalli
CHPE5212	Chemical Engineering Lab III	Dr. Farouk Sabri Mjalli
CHPE5512	Project II	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5512	Project II	Dr. Ala'a Al-Muhtaseb
CHPE5512	Project II	Dr. Ghulam Murshid
CHPE5512	Project II	Dr. Farouk Sabri Mjalli
CHPE5512	Project II	Dr. Omar Houache
CHPE5512	Project II	Dr. Jamil Nasser
CHPE5512	Project II	Dr. Rashid Salim Al-Hajri
CHPE5512	Project II	Dr. Ashish Gujarathi
CHPE5512	Project II	Dr. Gholamreza Vakili-Nejad
CHPE5512	Project II	Dr. Mohammed Zaher Al Abri
CHPE5512	Project II	Dr. Talal Khamis Al-Wahaibi
CHPE5512	Project II	Dr. Hasan Abdellatif Hasan
PETM3006	Engineering Geology	Dr. Khalid Hilal Al-Rawahi
PNGE2102	Basic Mechanics	Dr. Nasr Hamood Al Hinai
PNGE3202	Numerical Methods	Dr. Farouk Sabri Mjalli
PNGE3202	Numerical Methods	Dr. Farouk Sabri Mjalli
PNGE3212	Rock & Fluid Properties	Dr. Hamoud Khalfan Al-Hadrami
PNGE4101	Statistics for Engineers	Dr. Adel Mohammed Al-Ajmi
PNGE4101	Statistics for Engineers	Dr. Adel Mohammed Al-Ajmi
PNGE4512	Formation Evaluation	Dr. Hamoud Khalfan Al-Hadrami

Code	Title	Instructor(s)
PNGE4612	Well Testing	Prof. Rashid Salim Al-Maamari
PNGE4712	Reservoir Simulation	Dr. Majid Ahmed Al-Wadhahi
PNGE5102	Health, Safety & Environment	Dr. Omar Houache
PNGE5103	Engineering Economy	Dr. Hasan Abdellatif Hasan
PNGE5103	Engineering Economy	Dr. Hasan Abdellatif Hasan
PNGE5203	Management for PCE	Dr. Khalid Hilal Al-Rawahi
PNGE5215	Project II	Dr. Majid Ahmed Al-Wadhahi
PNGE5412	Field Process of NG	Dr. Yahya Mansoor Al-Wahaibi

Table E4: Courses Offered in Fall 2016

Code	Title	Instructor(s)
CHPE3101	Materials Engineering	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE3102	Engineering Thermodynamics	Dr. Ala'a Al-Muhatabeb
CHPE3102	Engineering Thermodynamics	Dr. Ala'a Al-Muhatabeb
CHPE3103	Professional Practice	Dr. Hasan Abdellatif Hasan
CHPE3103	Professional Practice	Dr. Hasan Abdellatif Hasan
CHPE3112	Principles of Chemical Processes	Dr. Jamil Naser
CHPE3302	Fluid Flow	Dr. Talal Khamis Al-Wahaibi
CHPE3402	Heat Transfer	Dr. Muhammad Rashid Usman
CHPE4112	Chemical Engineering Thermodynamics	Dr. Ghulam Murshid
CHPE4112	Chemical Engineering Thermodynamics	Dr. Ghulam Murshid
CHPE4212	Unit Operations I	Dr. Rashid Salim Al-Hajri
CHPE4212	Unit Operations I	Dr. Rashid Salim Al-Hajri

Code	Title	Instructor(s)
CHPE4302	Desalination	Dr. Mohammed Zaher Al Abri
CHPE4312	Chemical Engineering Lab I	Dr. Jamil Naser
CHPE4312	Chemical Engineering Lab I	Dr. Jamil Naser
CHPE4712	Chemical Engineering Lab II	Dr. Farouq Sabri Mjalli
CHPE4712	Chemical Engineering Lab II	Dr. Farouq Sabri Mjalli
CHPE5112	Chemical Process Control	Dr. Farouq Sabri Mjalli
CHPE5112	Chemical Process Control	Dr. Farouq Sabri Mjalli
CHPE5312	Project I	Dr. Ashish Gujarathi
CHPE5312	Project I	Dr. Ala'a Al-Muhataseb
CHPE5312	Project I	Dr. Ala'a Al-Muhataseb
CHPE5312	Project I	Dr. Jamil Naser
CHPE5312	Project I	Dr. Talal Khamis Al-Wahaibi
CHPE5312	Project I	Dr. Abdulaziz Rashid Al-Hashmi
CHPE5312	Project I	Dr. Gholamreza Vakili-Nejad
CHPE5312	Project I	Dr. Rashid Salim Al-Hajri
CHPE5312	Project I	Dr. Mohammed Zaher Al Abri
CHPE5312	Project I	Dr. Farouq Sabri Mjalli
CHPE5312	Project I	Dr. Hasan Abdellatif Hasan
CHPE5312	Project I	Dr. Ghulam Murshid
CHPE5312	Project I	Dr. Muhammad Rashid Usman
CHPE5412	Plant & Process Design	Dr. Hasan Abdellatif Hasan
CHPE5412	Plant & Process Design	Dr. Hasan Abdellatif Hasan
CHPE5612	Chemical Process Safety	Dr. Omar Houache
CHPE5612	Chemical Process Safety	Dr. Omar Houache
PETM3006	Engineering Geology	Dr. Khalid Hilal Al-Rawahi
PNGE3111	Chemistry for Petroleum Engineering	Dr. Muhammad Rashid Usman
PNGE3112	Introduction to PNGE	Dr. Hamoud Khalfan Al-Hadrami

Code	Title	Instructor(s)
PNGE3202	Numerical Methods	Dr. Ashish Gujarathi
PNGE4101	Statistics for Engineers	Dr. Adel Mohammed Al-Ajmi
PNGE4212	Drilling Technology	Dr. Hamoud Khalfan Al-Hadrami
PNGE4312	Drilling Technology Lab	Dr. Hamoud Khalfan Al-Hadrami
PNGE4412	Reservoir Engineering	Prof. Rashid Salim Al-Maamari
PNGE5103	Engineering Economy	Dr. Ashish Gujarathi
PNGE5112	Production Engineering	Dr. Yahya Mansoor Al-Wahaibi
PNGE5115	Project I	Dr. Majid Ahmed Al-Wadhahi
PNGE5122	Introduction to Rock Mechanics	Dr. Adel Mohammed Al-Ajmi
PNGE5203	Management for PCE	Dr. Khalid Hilal Al-Rawahi
PNGE5212	Secondary Oil Recovery	Dr. Majid Ahmed Al-Wadhahi

POSTGRADUATE STUDIES

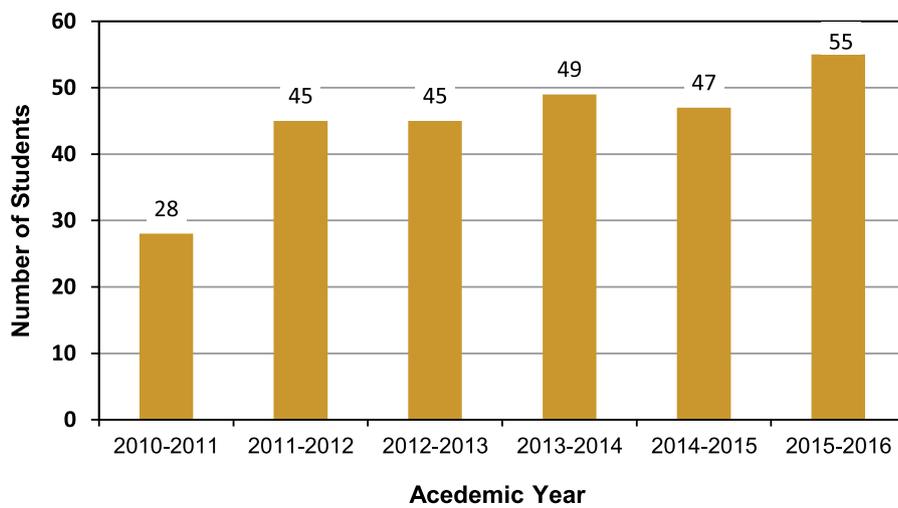


Figure E1: Postgraduate Students' Enrolment for the Past Six Years

Courses

Table E5: Postgraduate Courses Offered in Year 2016

Semester	Code	Title	Instructor(s)
Fall 2016	CHPE6200	Advanced Chemical Thermodynamic	Dr. Gholamreza Vakili-Nejad
	CHPE6900	Special Topics	Dr. Farouk Sabri Mjalli
	CHPE7001	Thesis	Dr. Gholamreza Vakili-Nejad
	CHPE8001	PhD Thesis	Dr. Gholamreza Vakili-Nejad
	PNGE6001	Transport Processes	Dr. Peyman Pourafshary
	PNGE6101	Advance Production Engineering	Dr. Peyman Pourafshary
	PNGE6108	Thermo physical Properties of Fluids	Dr. Gholamreza Vakili-Nejad
	PNGE7001	Thesis	Dr. Majid Al-Wadhahi
	PNGE8001	PhD Thesis	Dr. Gholamreza Vakili-Nejad
Spring 2016	CHPE6100	Advanced Transport Phenomena	Dr. Gholamreza Vakili-Nejad
	CHPE6300	Advanced Chemical Reaction	Dr. Ashish Gujarathi
	CHPE6510	Process Optimization	Dr. Omar Houache
	CHPE7001	Thesis	Dr. Gholamreza Vakili-Nejad
	CHPE8001	PhD Thesis	Dr. Gholamreza Vakili-Nejad
	PNGE6002	Advanced Reservoir Engineering	Dr. Peyman Pourafshary
	PNGE6105	Oil Recovery Methods	Dr. Peyman Pourafshary
	PNGE7001	Thesis	Dr. Majid Al-Wadhahi
	PNGE8001	PhD Thesis	Dr. Majid Al-Wadhahi

Postgraduate Students' Projects

Table E6: Students' Projects in Year 2016

No	Student Name	Project Title
1	Zainab Al-Aani	Desulfurization of Liquid Fuel by Deep Eutectic Solvent Using Small Channels
2	Alia Mohammed Shafiq	Well Placement of Oil Wells Using Multi Well Productivity Index Method (MPI)
3	Ebtisam Al-Nassri	Prediction of Pressure Gradient in Horizontal Dispersed Oil-Water
4	Samia Mohammed Al-Riyami	Effect of Oil Type on the Performance of Carbonated Water Injection for Enhanced Oil Recovery under Consistent Operating Conditions
5	Zawan Al-Wahaibi	Enhancing Performance of Steam Assisted Gravity Drainage Using Foam (FA-SAGD) in an Omani Oil Field
6	Thuraya Nasser Alkharusi	Adsorption and Wettability Alteration of Polymer and Surfactant Using Native Core from Omani Oilfield for Alkaline-Surfactant-Polymer EOR Technique
7	Balqees Yahya Al-Kharusi	Effect of Smart Water Shock on the Oil Recovery from Carbonate Reservoirs
8	Sara AL Balushi	Investigation of Polymer and Surfactant Adsorption on Glass Slides and Crushed Cores in Alkaline-Surfactant-Polymer EOR Method
9	Waqar Ahmed	Modelling and Experimental Determination of CO ₂ -Crude Oil Minimum Miscibility Pressure (MMP) for CO ₂ -Crude Oil Systems
10	Abdulkareem Abubaker (PhD)	Study of Oil-Water Flow with Drag-Reducing Polymer in Different Pipe Inclinations and Diameters
11	Omar Umar Ahmed (PhD)	Ionic Liquid based Deep Oxidative Desulfurization of Liquid Fuel
12	Adel Mohsenzadeh (PhD)	Novel Application of Deep Eutectic Solvents for Enhanced Heavy Oil Recovery



RESEARCH

Grants and Contracts

Table E7: New Grants, Contracts and Consultancies by Faculty Members in Year 2016

Research Title	Principal Investigator(s)	Budget (OMR)	Funded by
Eutectic Solvents for the Separation of Aromatic and Aliphatic Compounds	Dr. Farouq Mjalli	8,300	SQU
Experimental and Theoretical Studies on the Viscosity of Nanofluids	Dr. Majid Al-Wadhahi	6,450	SQU
Investigation of Carbon Dioxide Absorption Characteristics in Amino Acid activated Solutions of Potassium Carbonate	Dr. Ghulam Murshid	7,125	SQU
Deep Desulfurization of Liquid Fuel in Microchannels using Deep Eutectic Solvents	Dr. Farouq Mjalli	15,000	SQU/UAE University
Thermobaric Chemical Lab Test for Well Stimulation and Enhancement	Dr. Rashid Al-Hajri	16,000	PDO
Coreflooding Study on BJ and SDDN fields	Prof. Rashid Al-Maamari	102,098	PDO

Publications

Refereed Journal Papers

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3. Ahmad, W., Vakili-Nezhaad, G.R., Al-Bemani, A. and Al-Wahaibi, Y. 2016. Uniqueness, Repeatability Analysis and Comparative Evaluation of Experimentally Determined MMPs. *Journal of Petroleum Science and Engineering*, 147:218-227.
4. Ahmed, O.U., Mjalli, F.S., Al-Wahaibi, T., Al-Wahaibi, Y. and AlNashef, I.M. 2016. Efficient Non-Catalytic Oxidative and Extractive Desulfurization of Liquid Fuels using Ionic Liquids. *RSC Advances*, 6:103606-103617.
5. Ahmed, O.U., Mjalli, F.S., Hadj-Kali, M.K., Al-Wahaibi, T. and Al-Wahaibi, Y. 2016. Measurements and Prediction of Ternary Liquid-Liquid Equilibria for Mixtures of IL + Sulfur Compound + Hexadecane. *Fluid Phase Equilibria*, 421:16-23.
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13. Bahadori, L., Hashim, M.A., Manan, N.S.A., Mjalli, F.S., Alnashef, I.M., Brandon, N.P. and Chakrabarti, M.H. 2016. Investigation of Ammonium- and Phosphonium-based Deep Eutectic Solvents as Electrolytes for a Non-aqueous All-vanadium Redox Cell. *Journal of the Electrochemical Society*, 163:A632-A638.
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23. Vakili-Nezhaad, G.R., Al-Aisae, A., Al-Jabri, M., Al-Barwani, S. and Al-Jahawari, Z. 2016. Density Calculation of Ionic Liquids. In: *4th International Conference on Renewable Energy*, Belfort, France, 8-10 February 2016.

Books

1. Gujarathi, A.M. and Babu, B.V. 2016. *Evolutionary Computation: Techniques and Application*, Apple Academic Press, USA.

Book Chapters

1. Naushad, M., Sharma, G., Al-Muhtaseb, A.H. and Dubinin-Radushkevich, D.R. (2016). Isotherm Studies of Equilibrium Sorption of Metal Ions onto Phosphoric Acid Modified Rice-Husk. In: Pathania, D. (Ed) *Heavy Metals: Sources, Toxicity and Remediation Techniques*, Nova Science Publisher, NY, USA, pp. 231-250.

Technical Reports

1. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Polymer EOR in PDO: Bulk Rheology, Stability, Particle Size, Adsorption and In-situ Rheology of Flopaam 3630S*, Interim Report, Petroleum Development Oman.
2. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Polymer EOR in PDO: Displacement test using ZLPAM 10531 and SAP CELB 217 in Marmul Core*, Interim Report, Petroleum Development Oman.
3. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Polymer EOR in PDO: Bulk rheology, Stability, Particle size, Adsorption and In-situ Rheology of ZLPAM 10531*, Final Report, Petroleum Development Oman.
4. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Colloidal Dispersion Gels Project*, Final Report, Petroleum Development Oman.
5. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Polymer EOR in PDO: Nimr Low Concentration Polymer Evaluation*, Interim Report, Petroleum Development Oman.
6. Al-Maamari, R.S. and Al-Hashmi, A.Z. 2016. *Development and Evaluation of New Polymers for Chemical EOR for Oman Reservoir Conditions: Thermal Stability of FLOCOMB C6240 and FLOPAAM 3630s*, Interim Report, SNF FLOERGER, France.

OTHER ACTIVITIES



Awards

1. Al-Maamari, R.S. 2016. *Japan Petroleum Institute (JPI) Award for Distinguished Papers*. Examination of Effective Coagulant for Polymer Flood Produced Water and Pilot Trial in Oman. 23 May, 2016.
2. Murshid, G. 2016. *Synthesis of Amine based MOF-74 for Carbon dioxide Capture*. Best Conference Paper Award, ICMSEM, 2016, Singapore

Short Courses and Conferences

1. Al-Muhtaseb, A.H., 2016. *Workshop on Production of Green Fuel from Biomass*, The Independent Learning Center at Sultan Qaboos University, 27-29 February 2016.
2. RO Desalination Workshop, Organized by Oman Water Society, Venue: Middle East Desalination Research Centre (MEDRC) 22-23 August 2016.
3. Nanotechnology and its Applications Workshop, organized by and held in College of Applied Sciences in Sohar, 4 October 2016.

Invited Talks/Guest Speaker

1. Al-Maamari. R.S. 2016. *Treatment of a Hydrocarbon Contaminated Groundwater & Soil Site in Oman. A Workshop on: The Application of Sustainable Risk-Based Approaches for Assessment and Remediation of Contaminated Soil and Groundwater. Sultan Qaboos University, Muscat, Sultanate of Oman, 26-28 September 2016.*
2. Gujarathi, A.M. 2016. Multi-objective Optimization of Real World Problems. At *North Maharashtra University, Jalgaon, India, 20 August 2016.*
3. Mohammed Al-Abri. 2016. *Water Treatment and Desalination Technologies. World Water Day Celebration, Al-Rustaq, Oman, 24 March 2016.*

Society of Chemical Engineers

Awards

1. 1st place as best poster participated in International Conference on Renewable Energy: Generation and application (ICREAG'16) in France.
2. 3rd place in as best student project participated in the 6th Engineering Exhibition organized by Engineering Society.
3. 1st place in Engineering Challenge organized by Society of Chemical Engineering.
4. 2nd place in SChemE E-Car competition organized by Society of Chemical Engineering.

Workshops, Short Training Courses and Competitions

1. 11th Chemical Engineering Gathering (24/216): The exhibition was held at SQU and was organized by SChemE mainly to show projects of CHPE students from different universities and colleges in Oman.
2. Chem E Car competition (25/216): The competition was held at SQU and was organized by SChemE to improve creative thinking and teamwork skills for the engineering students.
3. Engineering Challenge (29/216): The competition was held at SQU and was organized by SChemE to improve creative thinking and teamwork skills for the engineering students.
4. Participated in the 6th Engineering Exhibition organized by Engineering Society (4/416).



5. Participation of eight CHPE students at the 11th Gulf Petrochemical Conference Association (27/1116).
6. *Discover the industry: Oil and Gas Lecture* (2516): This Lecture was held in SQU and was organized by SChEmE to improve the knowledge of Engineering student in Oil and Gas industry.
7. AspenPlus Workshop (15/1116): The Lecture was held at Chemical Engineering Lab to prepare 4th year students for using this program in their projects.
8. Seminar held at SQU by SChEmE for 4th year student to share the *Internship Experiences* from the graduated students (1/216).

Society of Petroleum Engineers – SQU SPE Students Chapter Awards

Society of Petroleum Engineering earned the prestigious 2016 SPE Student Chapter Gold Standard Award.

Workshops, Short Training Courses and Competitions

1. Organized the *Black Gold exhibition*, which was held on the duration from 19-20 February 2016 at Muscat Grand Mall. The exhibition was the main event of the society, which aimed to explain and introduce the oil industry to the public and the students.
2. Organized a seminar about *Nanotechnology* on 17th October 2016. The seminar was conducted in the university and it discussed the basics and knowledge of Nanotechnology.
3. Organized a seminar about *Biofuel* on 18th October 2016. The seminar was conducted in the university and was offered for all students and it aimed to give the students the knowledge about Biofuel.
4. Organized *Oilpedia, 7Qs exhibition* during 16-19 October 2016. The exhibition was conducted in the university and was consisting of different sections which explained the oil industry from the exploration stage till the abandonment stage.
5. Organized a workshop about *Simulation and Fluid Dynamics* on 2nd August 2016. The workshop was conducted to explain different models and simulators principles.
6. Organized “*Challenge Accepted*” competition on 4th March 2016. The competition was organized by SPE at SQU. The competition was offered only to petroleum engineering students.
7. Organized the “*Blood Donation Campaign*” on 17-18 October 2016. It was conducted in SQU and was during the same week of the Black Gold exhibition.





College of Engineering
Sultan Qaboos University
P.O. Box: 33, Al-Khoud, P.C: 123
Phone: +968 24141301
Fax: +968 24413416
<http://www.squ.edu.om/eng/>