



Sultan Qaboos University

2015 ANNUAL REPORT COLLEGE OF ENGINEERING





Sultan Qaboos University

2015
ANNUAL REPORT
COLLEGE OF ENGINEERING



Contents

6 College of Engineering

32 Department of Civil and Architectural Engineering

66 Department of Electrical and Computer Engineering

114 Department of Mechanical and Industrial Engineering

158 Department of Petroleum and Chemical Engineering



PUBLICATION AND WEB COMMITTEE

«FOCUSING ON PUBLICATIONS OF OUR COLLEGE»

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

Dr. Abdullah Özer (Department of Mechanical and Industrial Engineering)

Dr. Ashish M. Gujrathi (Department of Petroleum and Chemical Engineering)

Dr. Muhammad 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)

Directions by:

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

Designed by:

Athra Hamed Al-Amri (Center for Educational Technology)

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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 first-ranked Engineering Colleges in GCC and the best Engineering College in Oman. It offers eight internationally 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 M.Sc and six Ph.D programs in various disciplines across all 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, University Council has approved the establishment of new specialization in the Department of Electrical and Computer Engineering, which is Biomedical Signals and Medical Devices.

The College of Engineering is considered among the colleges that admitted large number of students, the number of new undergraduate students admitted in 2015 approached around 500 students. The total number of active students in the College is the second highest in university, which is around 2900 students. The number of engineering students graduating every year has been increasing during the last years. In 2015, 510 students have graduated.

The College is progressing gradually in postgraduate students' enrolment. The number of postgraduate students (Master and Doctoral) enrolled has reached 120 students in 2015. The total graduating master students in the college during 2015 reached 30 students. The College has graduated four PhD students in 2015, two from the Department of Petroleum and Chemical Engineering and other two from the Department of Electrical and Computer Engineering.

The College continues to attract research fund every year. This year the value of attracted fund for research and consultancy reached 986,963 OMR. The research projects in 2015 include 12 internally funded projects, 14 research/consultancy projects from industry and 2 project from TRC. In year 2015, the faculty in the college published 171 journal papers, 134 conference papers, 1 book, 11 book chapters and 24 technical reports.

In 2015, the College has welcomed 4 new faculty members, 2 technical staff, 1 coordinator and 1 storekeeper. Furthermore, the College has participated in the 22nd GCC Deans Meeting held in Saudi Arabia, Dammam on 28 - 29 April 2015. A yearly meeting where the GCC Deans of Engineering, Computer and Architecture meet to share experience and put forward plans for cooperation. Additionally, the College has contributed in the Global Engineering Deans Council Annual Meeting held in Adelaide, Australia from 30 November to 2 December 2015, which is a worldwide forum for exchange of information and discussion of experiences, challenges, and best practices in leading an engineering college.

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



DEAN'S OFFICE



Dr. Abdullah Hamed Al-Badi

Professor

Dean



Dr. Tasneem Pervez

Professor

Assistant Dean for Postgraduate Studies and Research (ADPSR)



Dr. Abdulnasir Yahya Hossen

Professor

Assistant Dean for Undergraduate Studies (ADUS)



Dr. Issa Hamdoon Al-Harthy

Assistant Professor

Assistant Dean for Training and Community Service (ADTCS)



Mrs. Badriyeh 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

Computer Engineer



Khalfan Salem Al-Abri
Computer Engineer



Mohamed Hussain Al-Mufarji
Computer Engineer



Issa Salem Al-Fori
College Messenger



Khalfan Masi Al-Rubkhi
College Messenger

Rahma Salim Al-Bulushi
Computer Engineer

Noura Hamood Al-Abri
Clerk, Dean's Office

Saida Hamed Al-Mashaikhi
Coordinator, ADUS



COLLEGE NEWS

New Academic Staff



Dr. Abdelsalam EL Haffar

Assistant Professor

Department of Electrical and Computer Engineering



Dr. Abdullah Khadim Al Janabi

Assistant Professor

Department of Mechanical and Industrial Engineering



Dr. Musaab Abdulla Zarog

Assistant Professor

Department of Mechanical and Industrial Engineering



Suaad S. Al-Zakwani

Demonstrator

Department of Petroleum and Chemical Engineering

New Technical and Administrative Staff



Mazin Muslem Al-Mahrezi

Engineer

Department of Petroleum and Chemical Engineering



Mohammed Said Al-Sabti

Storekeeper

Dean's Office



Osama Hamed Al-Hashimi

Engineer

Department of Civil and Architectural Engineering

Iman Suliyem Al-Sumri

Coordinator

Dean's Office

Academic Staff on Scholarships

Department of Civil and Architectural Engineering



Ms. Aliya Al-Hashim

Lecturer



Mrs. Hanan Al-Khatri

Lecturer

Mr. Mubarak Khamis Al-Alawi

Lecturer

Department of Electrical and Computer Engineering

Mr. Said Salim Al-Abri

Lecturer

Department of Mechanical and Industrial Engineering

Mr. Farooq Al-Jahwari

Lecturer

Mrs. Nasra Al-Maskari

Lecturer

Promotions



Dr. Afaq Ahmad

From Associate Professor to Professor

Department of Electrical and Computer Engineering



Dr. Jamil Abdo

From Associate Professor to Professor

Department Mechanical and Industrial Engineering



Dr. Rashid Al-Maamari

From Associate Professor to Professor

Department of Petroleum and Chemical Engineering



Dr. Abdullah Al-Shabibi

From Assistant Professor to Associate Professor

Department Mechanical and Industrial Engineering



Dr. Amur Al-Yahmadi

From Assistant Professor to Associate Professor

Department Mechanical and Industrial Engineering



Dr. Maatouk Khouki

From Assistant Professor to Associate Professor

Department of Civil and Architecture Engineering



Dr. Mohammed Al-Badi

From Assistant Professor to Associate Professor

Department of Electrical and Computer Engineering



Dr. Tariq Jamil

From Assistant Professor to Associate Professor

Department of Electrical and Computer Engineering



COLLEGE COMMITTEES

College Board	Prof. Abdullah Al-Badi	Dean (Chair)
	Prof. Abdulnasir Hossen	ADUS
	Prof. Tasneem Pervez	ADPSR
	Dr. Issa Al-Harthy	ADTCS
	Dr. Nasser Hosseinzadeh	HoD, ECE
	Prof. Khalifa Al-Jabri	HoD, CAE
	Dr. Nabeel Al-Rawahi	HoD, MIE
	Dr. Rashid Al-Maamari	HoD, PCE
	Dr. Zia Nadir	Invited Member, ECE
	Dr. Saleh Al-Saadi	Invited Member, CAE
	Dr. Rashid Al-Abri	ECE
	Dr. Mahmoud Al-Kindi	MIE
	Dr. Mohammed Al-Abri	PCE
	Dr. Ghazi Al-Rawas	CAE
	Dr. Faical Mnif	Coordinator, MCTE
Mrs. Badriya Al-Hashar	DoA	
Mr. Syed Muneer Uddin	Secretary	
Accommodation Committee	Prof. Abdullah Al-Badi	Dean (Chair)
	Dr. Nasser Hosseinzadeh	HoD, ECE
	Prof. Khalifa Al-Jabri	HoD, CAE
	Dr. Nabeel Al-Rawahi	HoD, MIE
	Dr. Rashid Al-Maamari	HoD, PCE
	Mrs. Badriyeh Al-Hashar	DoA

Executive Committee	Prof. Abdullah Al-Badi Prof. Abdulnasir Hossen Prof. Tasneem Pervez Dr. Issa Al-Harthy Dr. Nasser Hosseinzadeh Prof. Khalifa Al-Jabri Dr. Nabeel Al-Rawahi Dr. Rashid Al-Maamari Mrs. Badriyah Al-Hashar	Dean (Chair) ADUS ADPSR ADTCS HoD, ECE HoD, CAE HoD, MIE HoD, PCE DoA
Postgraduate Studies and Research Committee	Prof. Abdullah Al-Badi Prof. Tasneem Pervez Dr. Mahad Baawain Dr. Majid Al-Wadhahi Dr. Khalid Zebdah Dr. Ahmed Al-Maashri	Dean (Chair) ADPSR CAE PCE MIE ECE
Information and Communication Technology Committee	Dr. Amir Abdulghani Dr. Gholamreza Vakili Dr. Edris Hassan Dr. Mohammed Al-Shahri Mrs. Badriyah Al-Hashar Mr. Mahmood Al-Toubi	ECE (Chair) PCE MIE CAE DoA Computer Engineer
Accreditation Committee	Prof. Abdullah Al-Badi Dr. Faical Mnif Prof. Abdulnasir Hossein Dr. Abdulaziz Al-Hashmi Dr. Pourafshary Dr. Amer Al-Yahmadi Dr. Nassr Al-Hinai Dr. Ahmed Sana Dr. Saleh Al-Saadi Dr. Ali Al-Lawati Prof. Afaq Ahmad Dr. Riadh Zaier	Dean (Chair) Co-Chair ADUS PCE PCE MIE IND CAE CAE ECE ECE MCTE

Industrial Training	Dr. Issa Al-Harthy Dr. Adel Al-Ajmi Dr. Nasser Al-Azri Dr. Mohammed Al-Nadabi Dr. Lazhar Khriji Dr. Ghazi Al-Rawas Mr. Ibrahim Al-Saify	ADTCS (Chair) PCE MIE ECE MCTE CAE Deputy DoA
HSE and Security Committee	Dr. Omar Houache Dr. Ibrahim Garbie Dr. Lazhar Khriji Dr. Mahad Baawain Mr. Mohammed Al-Hadhrami Mr. Nasser Al-Mandhari Mr. Juma Al-Ruzaiqi Mr. Sulaiman Al-Kalbani Mrs. Badriyah Al-Hashar	PCE (Chair) MIE ECE CAE MIE PCE CAE ECE Coordinator/DoA
Publication and Web Committee	Prof. Sabah Al-Sulaiman Dr. Abdullah Özer Dr. Ashish Gujrathi Dr. Mohammed Bilal Waris Dr. Mohammed Bait-Swailem Mr. Ibrahim Al-Saifi Mr. Mohsen Ghanma	MIE (Chair) MIE PCE CAE ECE Deputy DoA CAE
Curriculum and Timetabling Committee	Prof. Abdulnasir Hossen Dr. Ali Al-Nuaimi Dr. Naima Benkari Dr. Jamil Naser Dr. Hamoud Al-Hadhrami Dr. Issam Bahdoor Dr. Ibrahim Garbie Dr. Faical Mnif Dr. Rashid Al-Abri Dr. Joseph Jervase	ADUS (Chair) CAE CAE PCE PCE MIE MIE MCE ECE ECE

Engineering Society Advisors Committee	Dr. Issam Bahdoor Dr. Farouq Mjalli Dr. Adel Al-Ajmi Dr. Chaham Alalouch Dr. Chefi Triki Dr. Edris Hassan Dr. Nasser Tarhuni Dr. Ashraf Saleem Mr. Ibrahim Al-Saify	MIE (Chair) PCE PCE CAE IND MIE ECE MCTE Coordinator/Deputy DoA
Social Activity Committee	Dr. Mahmoud Masoud Dr. Mohammed Al-Aghbari Dr. Peyman Pourafshary Dr. Nassr Al-Hinai Dr. Mohamed Beit-Swailem Mr. Ibrahim Al-Saifi Mr. Ahmed Al-Karboshi Mr. Hamed Al-Khanbashi	ECE CAE PCE MIE ECE Deputy DoA Coordinator Coordinator
Staff/Student Liaison Committee	Prof. Abdullah Al-Badi Prof. Abdulnasir Hossen Dr. Ibrahim Garbie Dr. Afaq Ahmed Dr. Mohammed Al-Aghbari Dr. Hamoud Al-Hadhrami	Dean (Chair) ADUS (Co-Chair) MIE ECE CAE PCE
College Strategic Planning and Development Committee	Prof. Abdullah Al-Badi Prof. Tasneem Pervez Prof. Abdulnasir Hossen Dr. Issa Al-Harthy Prof. Khalifa Al-Jabri Dr. Nasser Hosseinzadeh Dr. Rashid Al-Maamari Dr. Nabeel Al-Rawahi Dr. Joseph Jervase	Dean (Chair) ADPSR ADUS ADTCS HoD, CAE HoD, ECE HoD, PCE HoD, MIE ECE

College Academic Promotions Committee	Prof. Abdullah Al-Badi Prof. Khalifa Al-Jabri Prof. Hadj Bourdoucen Prof. Tasneem Pervez Prof. Ali Al-Harthy Dr. Nabeel Al Rawahi Prof. Rashid Al-Maamari	Dean (Chair) HoD, CAE ECE ADPSR, MIE CAE HoD, MIE HoD, PCE
Steering Committee for Mechatronics Engineering Program	Dr. Nasser Hosseinzadeh Dr. Nabeel Al-Rawahi Dr. Faical Mnif Dr. Amer Al-Yahmadi Dr. Jamil Abdo Dr. Riadh Zaier Dr. Issam Bahdoor Dr. Lazhar Khriji Dr. Mohammed Shafiq Dr. Ashraf Saleem Dr. Mojtaba Ghodsi Dr. Ahmed Al-Maashari Prof. Abdulnasir Hossen	HoD, ECE (Chair) HoD, MIE (Co-Chair) ECE (Program Coordinator) MIE MIE MIE MIE ECE ECE ECE MIE ECE ADUS
Agriculture-Engineering Program Committee	Prof. Abdulnasir Hossen Dr. Zahid Qamar Dr. Ahmed Sana	ADUS MIE CAE
Alumni Committee	Dr. Issa Al-Harthy Dr. Ala'a Hamed Muhtaseb Dr. Mohammed Al-Aghbary Dr. Fahad Shiginah Dr. Lazhar Khriji Dr. Abdullah Al-Shabibi	ADTCS (Chair) PCE CAE ECE MCE MIE
College Instructional Development Committee (CIDC)	Dr. Joseph Jervase Dr. Nabeel Al-Rawahi Dr. Mohammed Al-Nadabi Dr. Sherif El Gamal Dr. Jamil Nasser	ECE MIE ECE CAE PCE

Pre-Specialization Academic Advising Unit (PAAU)	Prof. Afaq Ahmad	ECE (Chair)
	Dr. Abdulwahid Hago	CAE
	Dr. Yahia Mohamedzein	CAE
	Dr. Ahmad Sana	CAE
	Prof. Mohammad Ould Khawa	ECE
	Dr. Mohammad Al Nadabi	ECE
	Dr. Amer Al Yahmadi	MIE
	Dr. Chefi Triki	MIE
	Dr. Nasser Al Azri	MIE
	Dr. Mohammed Al-Abri	PCE
	Dr. Hassan Abdellatif	PCE
Dr. Adel Al Ajmi	PCE	
College Industrial Advisory Board	Prof. Abdullah Al-Badi	Dean (Chair)
	Prof. Khalifa Al-Jabri	HoD, CAE
	Prof. Ali Al-Harthy	CAE
	Prof. Tasneem Pervez	ADPSR
	Dr. Hamoud Al-Hadhrami	PCE
	Prof. Hadj Bourdoucen	ECE
	Mr. Zahran Al-Oufi	Vice-Chair, General Manager, FALCON Oilfield Services
	Eng. Zaher Al-Abri	General Manager, Mazoon Electricity Company
	Mr. Harib Al-Kitani	Chief Executive Officer Oman LNG
	Dr. Saif Abdullah Al-Hiddabi	Assistant Secretary General for Research and Program, The Research Council
	Eng. Mohsin Al-Hadhrami	Vice President & General Manager, Schlumberger Oman & Co.
Hon. Shaikh Dr. Khattab Al-Hinai	State Council	



UNIVERSITY COMMITTEES

Academic Promotions Committee	Prof. Sabah Ahmed Al-Sulaiman (MIE)
Quality Assurance Committee	Dr. Zahid Qamar (MIE)
Library Committee	Dr. Ahmed Sana (CAE)
Course and Instructor Evaluation	Prof. Abdulnasir Hossen (ADUS)
PDO/SQU Liaison Committee	Prof. Tasneem Pervez (ADPSR) Prof. Rashid Al-Maamari (HoD, PCE)
Student Grievances Committee	Dr. Hamoud Al-Hadhrami (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 (CAE)
Board of Postgraduate Studies	Prof. Tasneem Pervez (ADPSR)
Board of Research	Prof. Tasneem Pervez (ADPSR)
University Ranking Committee	Dr. Joseph Jervase (ECE)
Centre of Excellence in Teaching and Learning	Dr. Hamoud Al-Hadhrami (PCE) Dr. Joseph Jervase (ECE)

SUMMARY OF STUDENTS ENROLMENT



The College of Engineering has grown rapidly since its start in 1986 and currently the student population has increased to around 2889 students during the year 2015, compared to only 92 students in 1986.

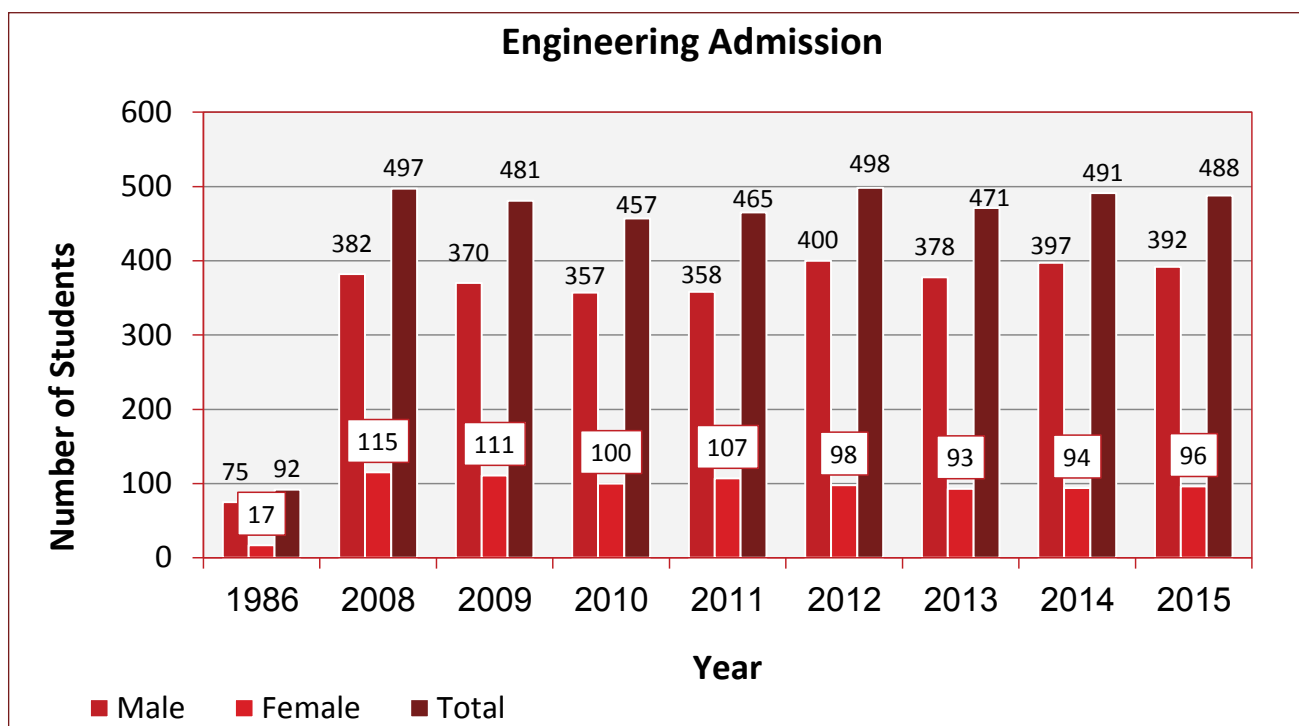


Figure A1: Annual College Admission

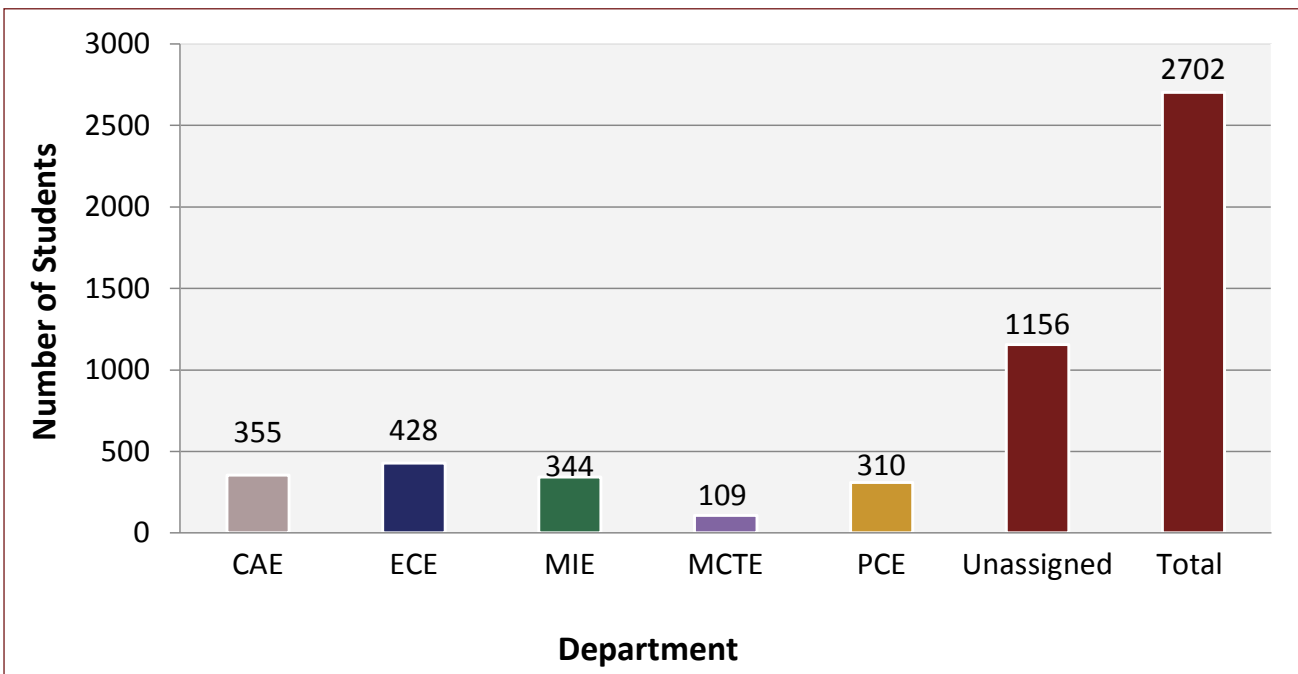


Figure A2: Enrolment in the Departments and Programs in Year 2015

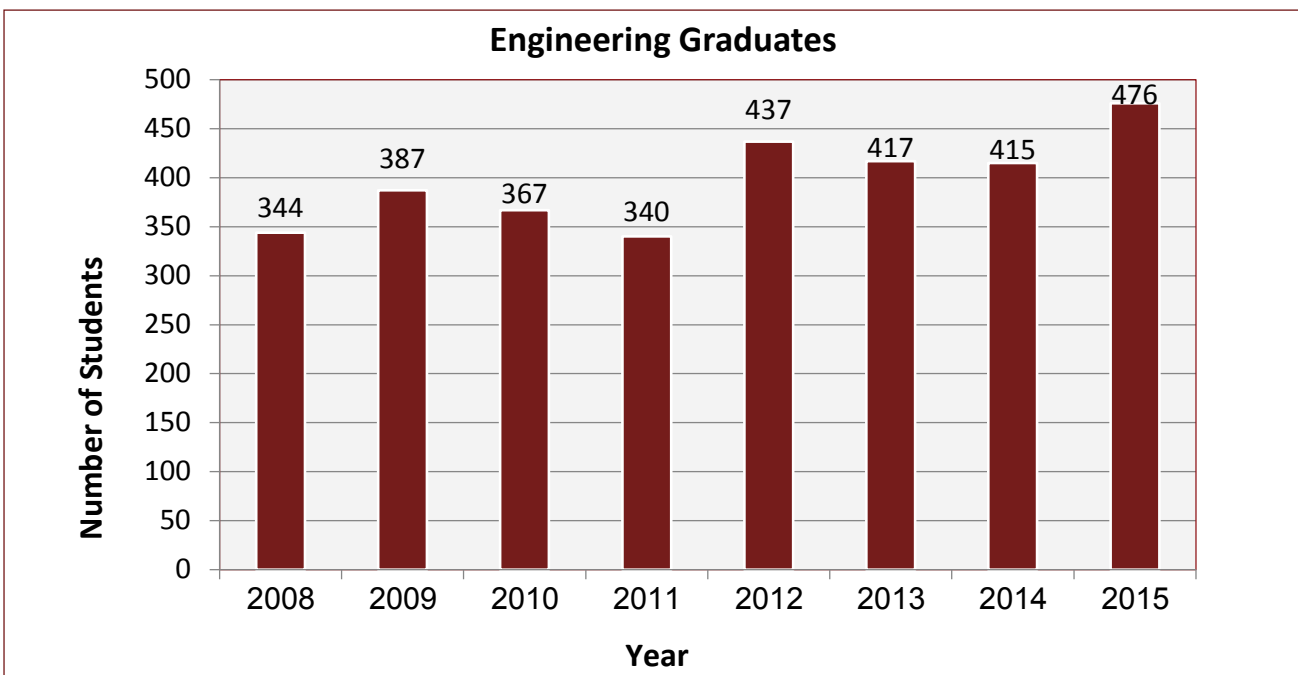


Figure A3: College's Graduates over the Past Eight Years

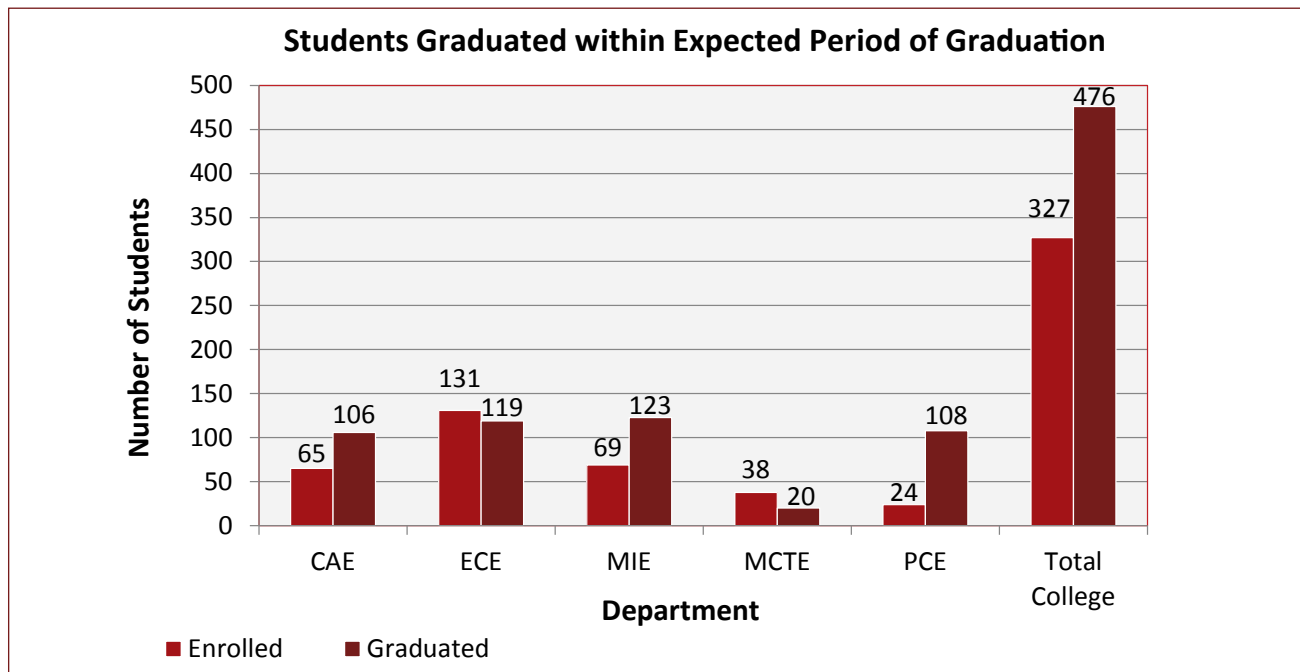


Figure A4: Expected Graduates per Department in Year 2015



SUMMARY OF INDUSTRIAL TRAINING

Every year, the College of Engineering provides an industrial student training for all level-4 students 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 sight visits to their students. During Summer 2015, several International exchanges with a total number of 20 countries within IAESTE and 4 countries outside IAESTE were made.

Table A1: Stastics of Industrial Training, Summer 2015

Training		CAE	ECE	MIE	PCE	MCTE	Total College
Local		60	87	71	66	11	295
Abroad	IAESTE	11	5	13	10	5	44
	Other	1	0	10	5	3	19
Sub Total		72	92	94	81	19	358

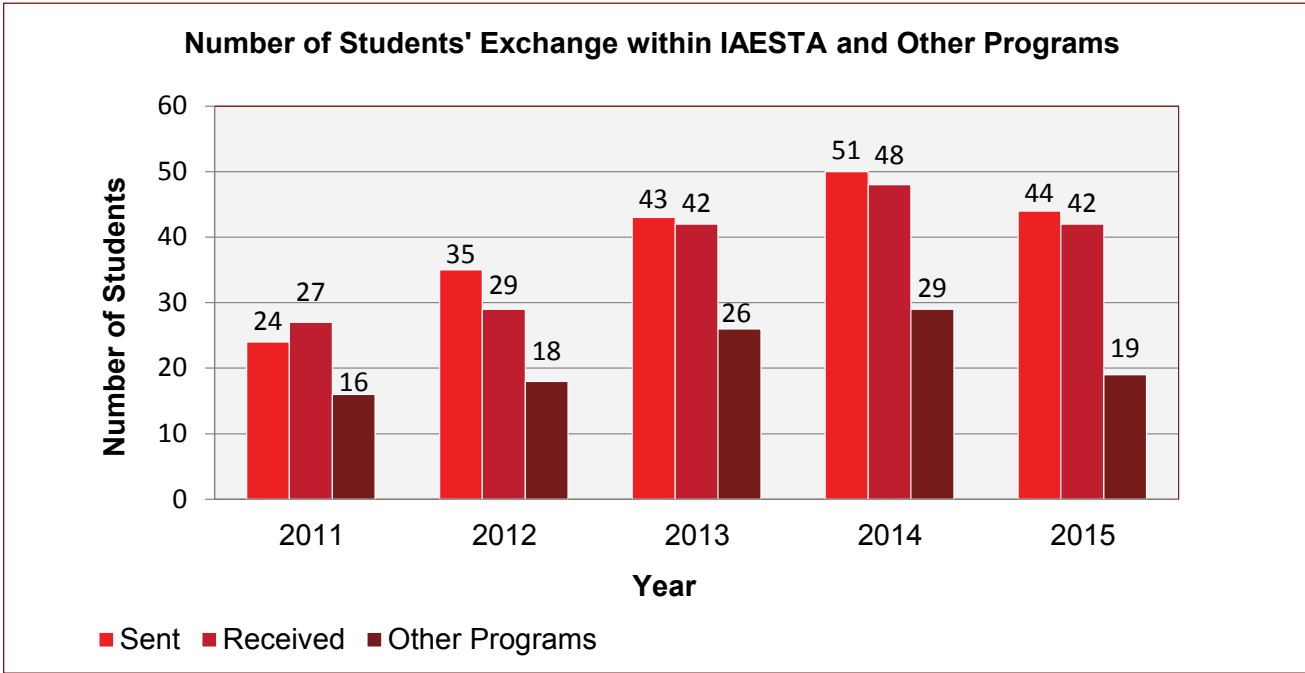


Figure A5: Students' Exchange within IAESTA and Other Programs since 2011



Civil and Architectural Engineering

Civil & Architectural Engineering





SUMMARY

The Department of Civil and Architectural Engineering offers two distinct undergraduate programs in Civil Engineering and Architectural Engineering. Both programs were fully accredited by the Accreditation Board for Engineering and Technology (ABET) in 2014 after a first recognition in 2006 and 2009 respectively.

The current enrolment in the two programs is 290 and 64, respectively while 85 students graduated from Civil Engineering Program and 21 graduated from Architectural Engineering Program in 2015. In Spring 2015, the department offered 46 courses out of which 11 had two sections and 2 had 3 sections. In Fall 2015, 40 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. On average, 20 students are usually registered per academic year in the first three active M.Sc. programs.

Table B1: Summary

	2014	2015
Faculty	31	31
Technical and Administrative	13	14
Total	45	45
On-study leave	1	3
Undergraduate Program		
Enrolment	360	363
Courses offered	91	120
Graduates	81	106
Graduate Program		
New enrolment	24	25
Courses offered	9	11
Thesis completed	5	4
Research		
New grants and contracts	6	5
Publications		
Refereed journals	28	31
Conference proceedings	28	24

The department offered 5 postgraduate courses in Spring 2015, while 6 courses were offered in Fall 2015. The department also has a Ph.D. program in Civil Engineering.

The department secured three internal research grants worth 20,500 OMR and two external projects worth 154,000 OMR in 2015. In 2015, the department organized the 4th ICE Convention for Middle East and Africa on 19 - 21 October and the 5th International Conference on Estuaries and Coasts on 2 - 4 November. In 2015, Ms. Aliya Al-Hashimi and Mrs. Hanan Al-Khatri left to pursue their Ph.D. while Dr. Abdullah Al-Saidy returned from his sabbatical leave.



DEPARTMENTAL PROFILE



Dr. Khalifa Al-Jabri

Professor, 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-Harhi

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. Yahya Mohamedzein

Associate Professor

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



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. Salim Al-Oraimi

Associate Professor

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



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

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 Baawain

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 and Assistant Dean for Training and Community Service

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

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. Mohamed Abdullah Al-Mamun

Assistant Professor

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



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. Luminda Hewawasam

Assistant Professor

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



Dr. Mohammed Al-Shahri

Assistant Professor

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



Dr. Mahmoud Abd El-Gelil

Assistant Professor

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



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 Architectural Engineering Program Coordinator

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 Salah-eldin Saleh

Assistant Professor

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



Eng. Aliya Abdul Sattar Al-Hashmi (On study leave)

Lecturer

Research Interest: Architectural Engineering



Eng. Hanan Al-Khatri (On study leave)

Lecturer

Research Interest: Architectural Engineering

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

Lecturer

Research Interests: Construction Management



Mr. Juma Al-Ruzaiqi

Superintendent

Research Interest: Highway



Mr. Suleiman Al-Kindi

Chief Engineer

Research Interest: Geotechnical Engineering



Mr. Mohsen Ghanma

Chief Technician/Architect

Research Interest: Architectural Engineering



Mr. Jamil Al-Yaqoobi

Senior Engineer

Research Interest: Civil Engineering



Mr. Yaqoub Al-Alawi

Engineer

Research Interest: Geotechnical Engineering



Mr. Salem Al-Ruzaiqi

Engineer

Research Interests: Surveying, Highway



Mr. Taiseer Al-Riyami

Engineer

Research Interest: Civil Engineering



Ms. Raya Al-Sharji

Laboratory Supervisor

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

<p>Accreditation Committee (Architectural Engineering Program)</p>	<p>Prof. Khalifa Al-Jabri (HoD) Prof. Awni Shaaban (Coordinator) Dr. Ranjith Perera Dr. Mohamed Saleh Dr. Chaham Alalouch Dr. Saleh Al-Saadi Dr. Sherif El-Gamal</p>
<p>Accreditation Committee (Civil Engineering Program)</p>	<p>Prof. Khalifa Al-Jabri (HoD) Dr. Ahmed Sana (Coordinator) Dr. Yahya Mohamedzein Dr. Ghazi Al-Rawas 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 Bawain (Coordinator) Dr. Khalid Al-Shamsi Dr. Mohamed Al-Aghbari Dr. Abdullah Al-Saidy</p>

Civil and Architectural Engineering Industrial Advisory Board	Prof. Khalifa Al-Jabri (HoD) Dr. Hossam Hassan (Coordinator) Dr. Saleh Al-Saadi Dr. Abdul Wahid Hago
Student-Staff Liaison Committee	Prof. Khalifa Al-Jabri (HoD) Dr. Ghazi Al-Rawas (Coordinator) Prof. Ali Al-Harthy Dr. Saleh Al-Saadi Two students from each cohort
Undergraduate Curriculum Committee	Prof. Khalifa Al-Jabri (HoD) Dr. Yahya Mohamedzein (Coordinator) Dr. Sherif El-Gamal Dr. Abdullah Al-Mamun Dr. Ali Al-Nuaimi Dr. Ghazi Al-Rawas Dr. Chaham Alalouch
Staff-Recruitment Committee	Prof. Khalifa Al-Jabri (HoD) Dr. Abdul Wahid Hago (Coordinator) Prof. Awni Shaaban Dr. Hossam Hassan Dr. Mahad Baawain Dr. Ghazi Al-Rawas
Academic Promotion Committee	Prof. Khalifa Al-Jabri (HoD, Coordinator) Prof. Awni Shaaban Dr. Abdul Wahid Hago Dr. Hossam Hassan Dr. Mahad Baawain
Development and Strategic Planning Committee	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 Dr. Mohamed Al-Shahri

Student Advising Committee	Prof. Khalifa Al-Jabri (HoD) Dr. Ghazi Al-Rawas (Coordinator) Dr. Naima Benkari Dr. Sherif El-Gamal Dr. Ahmed Sana Dr. Mohammed Seddik Meddah Dr. Luminda Gunawardhana
AREN Cohort 2014 Applications	Prof. Awni Shaaban Dr. Chaham Alalouch Dr. Mohammed Salah
Master Degree Proposal (AREN)	Dr. Ranjith Perera Dr. Naima Benkari Dr. Chaham Alalouch Dr. Mohamed Saleh
AREN Design Courses	Dr. Ranjith Perera Dr. Naima Benkari Dr. Chaham Alalouch Dr. Mohamed Saleh
AREN FYP	Prof. Awni Shaaban (Architecture) Dr. Maatouk Khoukhi (Mechanical and Electrical) Dr. Sherif El-Gamal (Structures) Dr. Ali Al-Nuaimi (Construction Engineering and Management)
Seminars and Publicity	Dr. Mohamed Al-Aghbari Dr. Luminda Gunawardhana
Social Activities	Dr. Mohammed Al Aghbari Mr. Said Al-Abri
IWAN	Dr. Saleh Al-Saadi Dr. Naima Benkari
CIVL Research FYP	Dr. Mohammed Al-Shahri
Textbooks	Dr. Abdullah Al-Mamun
Industrial Training Reports	Dr. Ghazi Al-Rawas
Timetabling	Dr. Ali Al-Nuaimi
Secretary	Dr. Hossam Hassan
CAE Society Advisor	Dr. Chaham Alalouch

AREN Meeting Secretary	Dr. Mohamed Saleh
Alumni and Employers' Survey (AREN)	Dr. Maatouk Khoukhi
AREN Facilities	Mr. Mohsin Ghanma
Catalyst Seminars	Dr. Mohamed Saleh
AREN Program Exhibition	Dr. Chaham Alalouch



UNDERGRADUATE STUDIES

Courses

Table B3: Courses Offered in Spring 2015

Code	Title	Instructor(s)
AREN2111	Architectural Design I: Basic Design	Ms. Hanan Al-Khatri
AREN2111	Architectural Design I: Basic Design	Dr. Chaham Alalouch
AREN2311	Architectural Drawing	Ms. Aliya Al-Hashmi
AREN2411	History of Architecture I: Modern and Contemporary	Dr. Chaham Alalouch
AREN3113	Architectural Design III: Complex Multi-Function	Ms. Aliya Al-Hashmi
AREN3113	Architectural Design III: Complex Multi-Function	Dr. Naima Benkari
AREN3313	Architectural Working Drawing	Dr. Mohamed Saleh
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	Prof. Awni Shaaban Dr. Ranjith Perera Dr. Mohamed Saleh
AREN4205	Residential Planning and Design	Dr. Ranjith Perera
AREN4818	Building Electrical Systems	Dr. Maatouk Khoukhi
AREN5116	Graduation Project II	Dr. Mohamed Saleh
AREN5403	Omani Vernacular Architecture	Dr. Naima Benkari

Code	Title	Instructor(s)
AREN5805	Building Energy Conservation and Analysis	Dr. Saleh Al-Saadi
CIVL2401	Professional Practice and Ethics	Dr. Ranjith Perera
CIVL2401	Professional Practice and Ethics	Dr. Alaa Salman
CIVL3036	Structures I	Dr. Sherif El-Gamal
CIVL3036	Structures I	Dr. Sherif El-Gamal
CIVL3046	Drawing II	Dr. Hossam Hassan
CIVL3046	Drawing II	Dr. Abdel Wahid Hago
CIVL3046	Drawing II	Dr. Abdel Wahid Hago
CIVL3066	Engineering Hydrology	Dr. Luminda Hewawasam
CIVL3066	Engineering Hydrology	Dr. Ghazi Al-Rawas
CIVL3076	Transportation Engineering	Dr. Khalid Al-Shamsi
CIVL3076	Transportation Engineering	Dr. Khalid Al-Shamsi
CIVL3086	Mechanics of Materials	Dr. Mahmoud Abd El-Gelil
CIVL3086	Mechanics of Materials	Prof. Ali Al-Harathi
CIVL3096	Construction Materials	Dr. Salim Al-Oraimi
CIVL3106	Geotechnical Engineering I	Dr. Mohamed Al-Aghbari
CIVL3216	Basic Mechanics	Dr. Issa Al-Harthy
CIVL3216	Basic Mechanics	Dr. Mohammed Seddik Meddah
CIVL4006	Probability and Statistics for Engineers	Dr. Yahya Mohamedzein
CIVL4006	Probability and Statistics for Engineers	Dr. Mohamed Al-Shahri
CIVL4016	Structures II	Dr. Sherif El-Gamal
CIVL4016	Structures II	Dr. Salim Al-Oraimi
CIVL4046	Fluid Mechanics	Dr. Luminda Hewawasam
CIVL4206	Concrete Design	Dr. Ali Al-Nuaimi
CIVL4216	Steelwork Design	Dr. Muhammad Bilal Waris
CIVL5111	GIS and Its Applications in Civil Engineering	Dr. Mahmoud Abd El-Gelil
CIVL5133	Soil Improvement Techniques	Dr. Mohamed Al-Aghbari
CIVL5156	Estimating Construction Cost	Dr. Ali Al-Nuaimi
CIVL5160	GIS in Water Resources	Dr. Ghazi Al-Rawas
CIVL5186	Water Supply and Wastewater Treatment	Dr. Abdullah Al-Mamun
CIVL5204	Engineering Economics	Dr. Alaa Salman
CIVL5204	Engineering Economics	Dr. Alaa Salman
CIVL5216	Pavement Design and Maintenance	Dr. Hossam Hassan
CIVL5236	Prestressed Concrete	Prof. Ali Al-Harathi
CIVL5326	Environmental Engineering II	Dr. Abdullah Al Mamun
CIVL5462	Cementitious Materials and Concrete Technology	Dr. Mohammed Seddik Meddah

Code	Title	Instructor(s)
CIVL5600	Introduction to Photogrammetry	Dr. Mohamed Al-Shahri
CIVL5996	Project II	Dr. Abdel Wahid Hago Dr. Ahmed Sana Dr. Hossam Hassan
ENGR2216	Fortran Programming for Engineers	Dr. Yahya Mohamedzein

Table B4: Courses Offered in Fall 2015

Code	Title	Instructor(s)
AREN2312	Architectural Drawing	Dr. Chaham Alalouch
AREN3112	Architectural Design II	Dr. Naima Benkari
AREN3211	Architectural Design Theory	Dr. Naima Benkari
AREN3312	Introduction to CAAD	Dr. Chaham Alalouch
AREN3811	Building Construction Methods	Dr. Mohamed Saleh
AREN3815	Sustainable Design	Prof. Awni Shaaban
AREN4114	Architectural Design IV	Dr. Ranjith Perera
AREN4222	Fire and Smoke	Dr. Maatouk Khoukhi
AREN4813	Building Illumination	Dr. Saleh Al-Saadi
AREN4817	Sanitary and Plumbing	Dr. Maatouk Khoukhi
AREN5116	Graduation Project II	Dr. Maatouk Khoukhi Prof. Awni Shaaban Dr. Sherif El Gamal Dr. Ranjith Perera Dr. Mohamed Saleh Dr. Saleh Al-Saadi
AREN5819	Specifications and Quantities	Dr. Mohamed Saleh
CIVL2401	Practice and Ethics	Dr. Ranjith Perera
CIVL3002	Drawing I	Dr. Issa Al-Harthy
CIVL3002	Drawing I	Dr. Chaham Alalouch
CIVL3002	Drawing I	Dr. Issa Al-Harthy
CIVL3036	Structures I	Dr. Sherif El-Gamal
CIVL3056	Surveying	Dr. Mahmoud Abd El-Gelil
CIVL3056	Surveying	Dr. Mohamed Al-Shahri
CIVL3056	Surveying	Dr. Ghazi Al-Rawas
CIVL3086	Mechanics of Materials	Prof. Ali Al-Harthy
CIVL3086	Mechanics of Materials	Dr. Abdullah Al-Saidi

Code	Title	Instructor(s)
CIVL3086	Mechanics of Materials	Dr. Mohammed Seddik Meddah
CIVL3096	Construction Materials	Dr. Salim Al-Oraimi
CIVL3096	Construction Materials	Dr. Salim Al-Oraimi
CIVL3216	Basic Mechanics	Dr. Abdel Wahid Hago
CIVL4036	Highway Engineering	Dr. Khalid Al-Shamsi
CIVL4036	Highway Engineering	Dr. Khalid Al-Shamsi
CIVL4136	Environmental Engineering-I	Dr. Abdullah Al-Mamun
CIVL4136	Environmental Engineering-I	Dr. Abdullah Al-Mamun
CIVL4146	Hydraulics	Dr. Luminda Hewawasam
CIVL4146	Hydraulics	Dr. Luminda Hewawasam
CIVL4146	Hydraulics	Dr. Mahad Baawain
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. Mohamed Al-Aghbari
CIVL4226	Foundation Engineering	Dr. Mohamed Al-Aghbari
CIVL5096	Concrete Structures	Dr. Ali Al-Nuaimi
CIVL5132	Environmental Geotechniques	Dr. Yahya Mohamedzein
CIVL5146	Numerical Methods	Dr. Mohamed Al-Shahri
CIVL5146	Numerical Methods	Dr. Yahya Mohamedzein
CIVL5150	Remote Sensing	Dr. Ghazi Al-Rawas
CIVL5156	Cost Estimation	Dr. Ali Al-Nuaimi
CIVL5226	Airport Design	Dr. Hossam Hassan
CIVL5311	Adjustment Computations	Dr. Mahmoud Abd El-Gelil
CIVL5336	Construction Management	Dr. Mohammed Seddik Meddah
CIVL5336	Construction Management	Dr. Mohammed Seddik Meddah
CIVL5993	Research Project I	Dr. Mohamed Al-Shahri
CIVL5995	Project I	Dr. Ahmed Sana Dr. Hossam Hassan Dr. Abdel Wahid Hago



POSTGRADUATE STUDIES

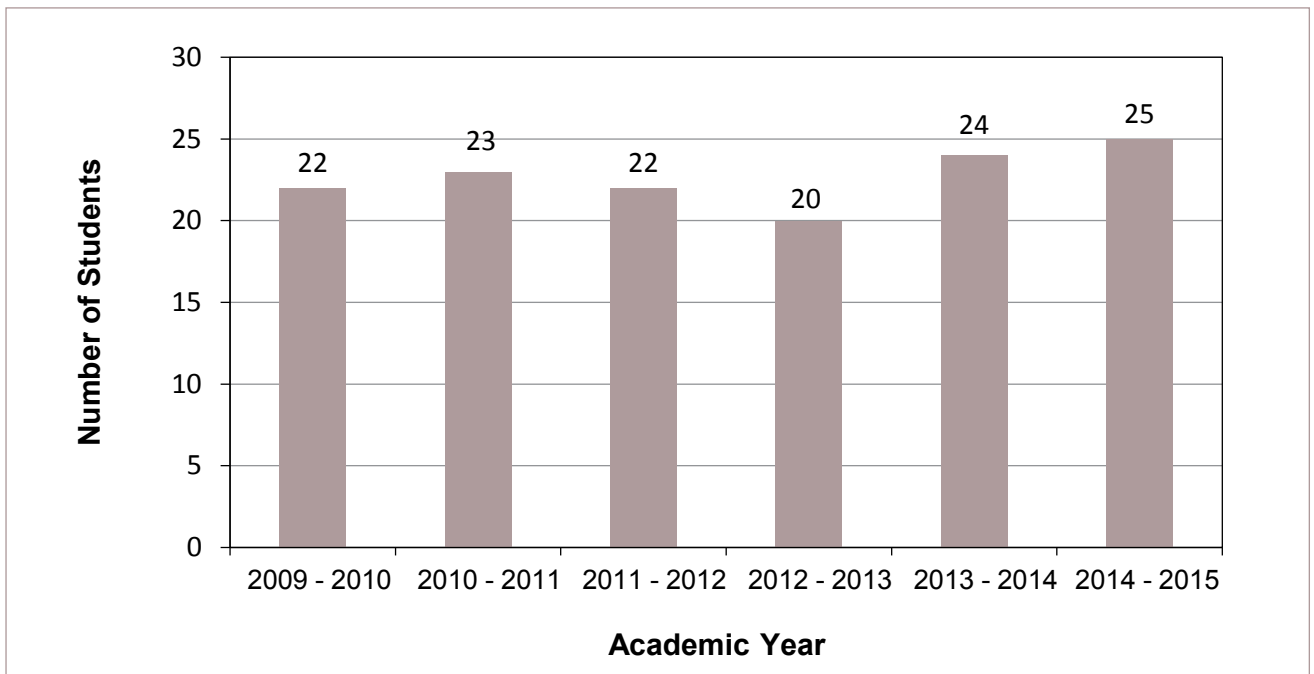


Figure B1: Postgraduate Students' Enrolment for the Past Six Years

Courses

Table B5: Postgraduate Courses Offered in Year 2015

Semester	Code	Title	Instructor(s)
Spring 2015	CIVL6110	Advanced Concrete Structures	Dr. Ali Al-Nuaimi
	CIVL6150	Finite Element Method	Dr. Muhammad Bilal Waris
	CIVL6780	Contaminant Transport Processes	Dr. Mahad Baawain
	CIVL6920	Fluvial Hydraulics	Dr. Ahmed Sana
	CIVL7000	M.Sc.Thesis	Dr. Mahad Baawain
Fall 2015	CIVL6165	Structural Rehabilitation	Dr. Abdullah Al-Saidi
	CIVL6170	Structural Dynamics	Dr. Muhammad Bilal Waris
	CIVL6400	Advanced Remote Sensing	Dr. Ghazi Al-Rawas
	CIVL6725	Physical Chemical Treatment	Dr. Abdullah Al-Mamun
	CIVL6935	Surface Hydrology	Dr. Luminda Hewawasam
	CIVL7002	M.Sc.Thesis	Dr. Mahad Baawain
	ENGR6913	Advanced Engineering Mathematics	Dr. Ahmed Sana

Postgraduate Students' Projects

Table B6: Students' Projects in Year 2015

No	Student Name	Project Title
1	Sultan Al-Mazroui	Upgrading the Flexural Capacity of Reinforced Concrete Beams Using Glass Fiber Reinforced Polymers
2	Hasan Saeed	Comparison of Omani Seismic Code with International Counterparts
3	Abdullah Al-Jabri	Application of an Air Dispersion Model of Hydrogen Sulfide for Alansab Sewage Treatment Plant
4	Wala Al-Amri	Ultimate Composition Analysis of Municipal Solid Waste in Muscat



RESEARCH

Grants and Contracts

Table B7: New Grants, Contracts and Consultancies by Faculty Members in Year 2015

Research Project Title	Principal Investigator	Budget (OMR)	Funded By
Development of Pervious Concrete using Local and Recycled Omani Materials for a Sustainable Drainage Solution and Insulation Applications	Dr. Mohammed Seddik	6,500	SQU
Engineering Consultancy Services for Dry Dock at Duqm Shipyard Area	Prof. Khalifa Al-Jabri	150,000	Oman Drydock Company
Performance Analysis of Wind Tower in Enhancing Indoor and Outdoor Thermal Comfort in Oman	Dr. Naima Benkari	8,500	SQU
Tensile Properties of New Generation of Glass Fibre Reinforced Polymer (FRP) Bars	Dr. Sherif El-Gamal	4,000	Pultron Composites Middle East
Waste to Watts: Green and Sustainable Electricity Generation from Wastewater Using Bacteria in Microbial Fuel Cell	Dr. Abdullah Al-Mamun	5,500	SQU

Publications

Refereed Journal Papers

1. Alalouch, C., Aspinall, P. and Smith, H. 2015. Architects' Priorities for Hospital Ward Design Criteria: Application of Choice-based Conjoint Analysis in Architectural Research. *Journal of Architectural and Planning Research*, 32(1):1-22.
2. Al-Mamun, A. and Baawain, M.S. 2015. Accumulation of Intermediate Denitrifying Compounds Inhibiting Biological Denitrification on Cathode in Microbial Fuel Cell. *Journal of Environmental Health Science and Engineering*, 13:81-90.
3. Alnuaimi, A.S., Al Mohsin, M., Hago, A. and El-Gamal, S.E. (2015) Overdesign of Villa Structures in Oman. *The Journal of Engineering Research (TJER)*, 12(2):66-76.
4. Al-Saadi, S. and Krarti, M. Evaluation of Optimal Hybrid Distributed Generation Systems for an Isolated Rural Settlement in Masirah Island, Oman. *Distributed Generation & Alternative Energy Journal*, 30(2):23-42.
5. Al-Saadi, S.N. and Zhai, Z. 2015. A New Validated TRNSYS Module for Simulating Latent Heat Storage Walls, *Energy and Buildings*, 109:274-290.
6. Al-Saadi, S.N. and Zhai, Z. 2015. Systematic Evaluation of Mathematical Methods and Numerical Schemes for Modeling PCM-Enhanced Building Enclosure, *Energy and Buildings*, 92:374-388.
7. Al-Saidy, A.H., Saadatmanesh, H., El-Gamal, S., Al-Jabri, K.S. and Waris, M.B. 2015. Structural Behavior of Corroded RC Beams with/without Stirrups Repaired with CFRP Sheets. *Materials and Structures*, (DOI) 10.1617/s11527-015-0751-y.
8. Al-Shamsi, K., Baawain, M., Al-Jabri, K., Taha, R. and Al-Kamyani, Z. 2015. Mix Design and Moisture Susceptibility of Asphalt Concrete Mixes Containing Waste Catalyst from Oil Refineries. *Journal of Pavement Research and Technology* 8(6):426-432.
9. AlSheraida, O. and El-Gamal, S. 2015. Performance of Modified Wedge Anchorage System for Pre-Stressed FRP Bars. *International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering*, 10(9):1187-1191.
10. Baawain, M.S., Al-Jabri, M. and Choudri, B.S. 2015. Characterization of Industrial Wastewater Sludge in Oman from Three Different Regions and Recommendations for Alternate Reuse Applications. *Iranian Journal of Public Health*, 44(11):1473-1481.
11. Chitrakar, P. and Sana, A. 2015. Groundwater Flow and Solute Transport Simulation in Eastern Al-Batinah Coastal Plain, Oman: Case Study. *Journal of Hydrologic Engineering*, 21(2):1-11.

12. Choudri, B.S., Baawain, M.S., Ahmed, A., Al-Sidairi, A. and Al-Nadabi, H. 2015. Relative Vulnerability of Coastal Wilayats to Development: A Study of Al-Batinah North, Oman. *Journal of Coastal Conservation*, 9(1):51-57.
13. Choudri, B.S. and Baawain, M.S. 2015. Effects of Pollution on Freshwater Organisms. *Water Environment Research*, 87(10):1679-1717.
14. Choudri, B.S. and Baawain, M.S. 2015. Radioactive Waste Management. *Water Environment Research*, 87(10):1471-1492.
15. Choudri, B.S. and Baawain, M.S. 2015. Sustainable Bioenergy from Biofuel Residues and Wastes. *Water Environment Research*, 87(10):1414-1444.
16. Choudri, B.S. and Baawain, M.S. 2015. Textile Waste Management. *Water Environment Research*, 87(10):1392-1413.
17. Choudri, B.S., Baawain, M.S. and Ahmed, A. 2015. Review of Water Quality and Pollution in Coastal Areas of Oman. *Pollution Research*, 34(2):229-239.
18. Choudri, B.S., Baawain, M.S., Al-Sidairi, A. and Al-Nadabi, H. 2015. An Indicator Based Vulnerability Assessment of Wilayats to Development. *Ecology. Environment and Conservation*, 21(2):495-502.
19. El Mankibi, M., Zhai, Z., Al-Saadi, S.N. and Zoubir, A. 2015. Numerical Modeling of Thermal Behaviors of Active Multi-Layer Living Wall. *Energy and Buildings*, 106:96-110.
20. El-Gamal, S., Al-Jabri, K., Al-Mahri, A. and Al-Mahrouqi S. 2015. Effects of Elevated Temperatures on the Compressive Strength Capacity of Concrete Cylinders Confined with FRP Sheets: An Experimental Investigation. *Journal of Polymer Science*, ID 549187.
21. El-Hussain, I., Deif, A., Mohamed, A.M.E., Al-Jabri, K., Gareth, B. and Yaqoup, H. 2015. Deterministic Seismic Hazard Assessment Close to a Gas Field in Northern Oman, *Arab Journal Geosciences*, 8(7):4299-4316.
22. Feroz, S., Al-Harthy, W., Baawain, M., Al-Saadi, S., Varghese, M.J. and Rao, L.N. 2015. Experimental Studies for Treatment of Seawater in a Re-Circulation Batch Reactor Using TiO₂ P25 And Polyamide. *International Journal of Applied Engineering Research*, 10(10):26259-26266.
23. Gunawardhana, L.N., Al-Rawas, G.A., Kazama, S. and Al-Najar, K.A. 2015. Assessment of Future Variability in Extreme Precipitation and the Potential Effects on the Wadi Flow Regime. *Environmental Monitoring and Assessment*, 187(626):1-19.
24. Gunawardhana, L.N., Kazama, S. and Al-Rawas, G.A. 2015. Simulating Thermal Pollution Caused By a Hypothetical Groundwater Heat Pump System under Different Climate, Operation and Hydrogeological Conditions. *Geothermal Energy*, 3(19):1-15.
25. Khoukhi, M. and Tahat, M. 2015. Effect of Temperature and Density Variation on Thermal Conductivity of Polystyrene Insulation Materials in Oman. *Journal of Engineering Physics and Thermophysics*, 88(4):994-998.

26. Meddah, M.S. 2015. Durability Performance and Engineering Properties of Shale and Volcanic Ashes Concretes. *Construction and Building Materials*, 79:73-82.
27. Mohamed, A.M.E., El-Hussain, I., Deif, A., Al-Jabri, K., Al-Habsi, Z. and El-Hady, S. 2015. Near-Surface Site Characterization at Quriyat City, Sultanate of Oman using HVSR and MASW Techniques, *Arab Journal Geosciences*, 9(1):1-18.
28. Permana, A.S., Perera R., Aziz N.A. and Siong, H.C. 2015. Corroborating the Land Use Change as Primary Determinant of Air Quality Degradation in a Concentric City. *International Journal of Built Environment and Sustainability*, 2(2):75-84.
29. Permana, A.S., Perera R., Aziz N.A. and Siong, H.C. 2015. Creating the Synergy of Land Use, Transport, Energy and Environment Elements towards Climate Change Co-Benefits, *International Journal of Built Environment and Sustainability*, 2(1):17-28.
30. Salah, M.S. and Alalouch, C. 2015. Towards Sustainable Construction in Oman: Challenges and Opportunities. *Procedia Engineering*, 118:178-185.
31. Sripanich, B., Nitivattananon, V. and Perera, R., 2015. City Development Fund: A Financial Mechanism to Support Housing and Livelihood Needs of Thailand's Urban Poor. *Habitat International*, 49:366-374.

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1. Abbasi, A., Alalouch, C. and Bramley, G. 2015. Open Space Quality in Deprived Urban Areas: User Perspective and Use Pattern. In: *Proceedings of Urban Planning and Architectural Design for Sustainable Development 2015 Conference*, Lecce, Italy, 14-16 October 2015.
2. Al Salhi, A., Gunawardhana, L.N. and Al-Rawas, G.A. 2015. Assessment of Future Variability in Extreme Precipitation in Muscat, Oman. In: *Proceedings of the 5th International Conference on Estuaries and Coast (ICEC2015)*, Muscat, Sultanate of Oman, 2-4 November 2015.
3. Al Shibani, S., Gunawardhana, L.N. and Al-Rawas, G.A. 2015. An Assessment of Trends in Extreme Temperature in Five Regions in Oman. In: *Proceedings of the 5th International Conference on Estuaries and Coast (ICEC2015)*, Muscat, Sultanate of Oman, 2-4 November 2015.
4. Al-Aghbari, M.Y. and Mohamedzein, Y.E.A. 2015. Improvement of Bearing Capacity of Strip Footings on Dune Sands Using Geogrids. In: *2nd International Conference on Trends in Multidisciplinary Business and Economic Research (TMBER)*, Bangkok, Thailand, 25-26 March 2015.
5. Alalouch, C., Saleh, M.S., Al-Saadi, S. 2015. Energy-Efficient House in the GCC Region. In: *Proceedings of Urban Planning and Architectural Design for Sustainable Development 2015 Conference*, Italy. Lecce, 14-16 October 2015.

6. Al-Bulushi, I., Edwards, J., Davey, J., Armstrong, K., Al-Maniri, A. and Al-Shamsi, K. 2015. Socio-Cultural Influences on Vehicle Defects in the Omani Heavy Vehicle Industry. In: *Australasian Road Safety Conference (ARSC2015)*, Gold Coast, Australia, 14-16 October 2015.
7. Al-Jabri, K. Benkari, N. 2015. The Role of Academic Institution in the Documentation and Sustainable Development of Built Heritage. In: *Proceedings of the National Built Heritage Forum*. Qassim Province, Kingdom Of Saudi Arabia. 29 November-03 December 2015.
8. Al-Jabri, K.S. 2015. Potential Use of Spent Catalyst as a Construction Materials, In: *UKIERI Concrete Congress*, Jalandhar, India, 2-5 November 2015.
9. Al-Mamun, M.D. and Baawain, M.S. 2015. Application of Electrochemically Active Marine Biofilms in an Osmotic Microbial Fuel Cell for Electrical Energy and Clean Water Recovery. In: *Proceedings of the 5th International Conference on Estuaries and Coasts (ICEC2015)*, Muscat, Sultanate of Oman, 2-4 November 2015.
10. Al-Mamun, M.D., Al-Saidi A. and Baawain M.S. 2015. Fixing Aerobic Marine Biofilm Cathode in a Compact Osmotic Microbial Fuel Cell for Freshwater Recovery and Power Generation. In: *Proceedings of the 5th International meeting on Microbial Electrochemistry and Technologies*, Tempe, Arizona, USA, 1-4 October 2015.
11. Al-Saadi S.N.J. 2015. Phase Change Materials for Autonomous Energy Storage in Buildings. In: *Proceedings of Building Simulation 2015: 14th International Conference of the International Building Performance Simulation Association (IBPSA)*. Hyderabad, India, 7-9 December 2015.
12. AlSheraida, O., El-Gamal, S.E. and Al-Saidy, A. 2015. Wedge Anchorage System for Prestressed CFRP Reinforcement - A Literature Review. In: *Proceedings of the International Conference on Innovations in Civil and Structural Engineering (ICICSE 2015)*, Istanbul, Turkey, 3-4 June 2015.
13. Baawain M.S., Al-Mamun M.D., Sana A. and Al-Wahaibi, A. 2015. Performance of Membrane Bioreactor versus Activated Sludge at a Domestic Wastewater Treatment Plant in Oman. In: *Proceedings of the Annual CSCE Conference*, Regina, Canada, 26-30 May 2015.
14. Baawain, M.S., Al-Balushi, H. and Al Zakwani, A. 2015. Removal of Organic Constituents from Treated Wastewater Using Nanotechnology and Advanced Oxidation Processes. In: *Proceedings of the International Conference on Biotechnology, Nanotechnology and Environmental Engineering*, Bangkok, Thailand, 22-23 April 2015.
15. Benkari, N. 2015. A Document of Ibadi Jurisprudence Related to the Architecture of Mosques. In: *Proceedings of the 1st International Islamic Heritage conference (1st InHeC 2015)*. Melaka, Malaysia, 11-12 November 2015.

16. Chitrakar, P., Baawain, M.S. and Sana, A. 2015. A Review of Marine Pollution Studies in Sea of Oman. In: *Proceedings of the 5th International Conference on Estuaries and Coasts (ICEC2015)*. Muscat, Sultanate of Oman, 2-4 November 2015.
17. El-Gamal, S., Al-Jabri, K., Al-Mahri, A. and Al-Mahrouqi, S. 2015. Effects of Elevated Temperatures on the Compressive Strength Capacity of Concrete Cylinders Confined with FRP Sheets: An Experimental Investigation. In: *Proceedings of the 1st International Conference on Structural Safety under Fire and Blast (CONFAB 2015)*, Glasgow, UK, 2-4 September 2015.
18. El-Gamal, S.E., Al-Jabri K.S., Al-Mahrouqi S.S. and Al-Mahri A.S. 2015. Performance of Concrete Cylinders Confined with FRP Sheets after Exposure to Elevated Temperatures. In: *Proceedings of the 1st International Conference on Structural Safety under Fire & Blast (CONFAB 2015)*, Glasgow, Scotland, UK, 2-4 September 2015.
19. El-Maaddawy, T. and Al-Saidy, A. 2015. Residual Strength of Glass Fiber-Reinforced Polymer Bars in Seawater-Contaminated Concrete. In: *Proceedings of the 5th International Conference on Construction Materials (ConMat' 15): Performance, Innovations and Structural Implications*, Vancouver, Canada, 19-21 August 2015.
20. Khoukhi, M. 2015. Variation of Thermal Conductivity of Polystyrene Insulation Material Under Different Operating Temperatures and Moisture Contents. In: *International Conference on Advances in Mechanical and Automation Engineering*, Italy. Rome, 18-19 April 2015.
21. Meddah, M.S., Nukushina, T., Seiki, S. and Sato, R. 2015. Properties of Binary Fly Ash Concrete Internally Cured with Waste Ceramic Tile Aggregate. In: *UKIERI Concrete Congress, Concrete Research Driving Profit and Sustainability*, Jalandhar, India, 2-5 November 2015.
22. Purnama, A., Baawain, M.S. and Shao, D. 2015. CORMIX Simulations of Dredged Sediment Discharges in Coastal Waters. In: *Proceedings of the 5th International Conference on Estuaries and Coasts (ICEC2015)*, Muscat, Sultanate of Oman, 2-4 November 2015.
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Books

1. Baawain, M.S., Choudri, B.S., Ahmed, A. and Purnama, A. 2015. *Recent Progress in Desalination, Environmental and Marine Outfall Systems*. Springer, ISBN: 978-3-319-19123-2.

Book Chapters

1. Baawain, M.S., Choudri, B.S., Ahmed, M., Purnama, A. 2015. An Overview: Desalination, Environmental and Marine Outfall Systems. In: Baawain, M.S., Choudri, B.S., Ahmed, M. and Purnama, A. (Eds.). *Recent Progress in Desalination, Environmental and Marine Outfall Systems*, Springer, pp. 3-10.
2. Sana, A. 2015. Hydrodynamic and Thermal Dispersion Modeling of the Effluent in a Coastal Channel. In: M. Baawain, B.S. Choudri, M. Ahmed and A. Purnama (Eds.). *Recent Progress in Desalination, Environmental and Marine Outfall Systems*, Springer, pp. 269-283.
3. Benkari, N. 2015. Les Caractéristiques de l'Architecture religieuse elbadite: Etude Des Mosquées dans la Vallée du M'zab, à Djerba, Djebel Nafusa et les piedmonts Omanais. In: Davie, M. (Ed.). *Le Patrimoine Architectural de l'Eglise Orthodoxe d'Antioche*. Publications of the University of Balamand, Lebanon, pp. 203-224.

Technical Reports

1. Baawain, M.S. and Choudri, B.S. 2015. *Review of Literature Related to Environmental Issues in the Sultanate of Oman*. Final Report, Ministry of Environment and Climate Affairs, Oman.
2. Benkari N. 2015. *Documentation and Management Plan of Harat Al Khabt and Husn 'Abs, Wilaya of Khaboora, Sultanate of Oman*. Ministry of Heritage and Culture, Oman.
3. Benkari N. 2015. *Documentation and Management Plan of Harat Qasra, Wilaya of Rustaq, Al-Batinah Region, Sultanate of Oman*. Ministry of Heritage and Culture, Oman.
4. Benkari N. 2015. *Documentation and Management Plan of Harat Saija, Wilaya of Samail, Sultanate of Oman*. Ministry of Heritage and Culture, Oman.
5. Benkari N. 2015. *Documentation and Management Plan of Hujrat Msalamat, Wilaya of Wadi Al Ma'awil, Sultanate of Oman*. Ministry of Heritage and Culture, Oman.
6. Nasir, J. and Baawain, M.S. 2015. *Investigating Arsenic Levels in Drinking Water at Rural Areas of Oman*. Final Report, Internal Grant, Sultan Qaboos University, Oman.



OTHER ACTIVITIES

Seminars

1. Alalouch. C. 2015. Parametric Design Simplified Workshop. Sultan Qaboos University, Muscat, April 6, 2015.
2. Alalouch. C. 2015. Parametric Design Simplified Workshop. The Scientific College of Design, Muscat, November 29, 2015.

Conferences/Workshops

1. The 4th ICE Convention for Middle East and Africa, 19-21 October 2015.
2. The 5th International Conference on Estuaries and Coasts (ICEC 2015), 2-4 November 2015.

Invited Talks

1. Alalouch, C. 2015. The Interior Design as a Profession. The Scientific College of Design, Muscat, February 26, 2015.
2. Al-Mamun, A. 2015. Prospects of Microbial Fuel Cell for Wastewater Treatment and Electricity Generation. *University of Bahrain*, Manama, June 25, 2015.
3. Al-Mamun, A. 2015. Prospects of Producing Bio-Fuel from Municipal Solid Waste. *Haji Danesh University of Science and Technology*, Bangladesh, July 16, 2015.
4. Al-Saadi, S. 2015. Building Simulation Tools for Sustainable Building Design, *Oman Centre of Architects*, November 30, 2015.

5. Benkari, N. 2015. Documenting the Built Heritage in Oman. *Scientific College of Design*, Oman February 2015.
6. Benkari, N. 2015. The Documentation of Vernacular Settlements in Oman Methods and Outcomes. *The College of Earth Sciences at the University Setif I*, Algeria, April 2015. (Presented in French)
7. Benkari, N. 2015. The Site Documentation, Strategies and Methods, One day Seminar presented for the Students of Masters of Architectural and Urban Heritage, *The College of Earth Sciences at the University Setif I*, Algeria, April 2015. (Presented in French)
8. El-Gamal, S. 2015. Corrosion Free Reinforced Concrete Structures: FRP as a Replacement of Steel Reinforcement. Keynote Speaker in the *International Conference on Innovations in Civil and Structural Engineering (ICICSE'2015)*, Istanbul (Turkey), June 3-4, 2015.
9. Gunawardhana, L. 2015. River Discharge Variations Attributed to Extreme Rainfall in Oman. *2nd International Symposium on Water Environment Systems*, Tohoku University, Japan, January 30, 2015.
10. Saleh, M. 2015. Exploring the Affective Qualities of Architectural Spaces. Scientific College of Design, April 2015.

Poster Presentations

1. Al-Mamun A., Al-Saidi A. and Baawain M.S. 2015. Fixing Aerobic Marine Biofilm Cathode in a Compact Osmotic Microbial Fuel Cell for Freshwater Recovery and Power Generation. In: *The 5th International Meeting on Microbial Electrochemistry and Technologies*, Tempe, Arizona, USA, 1-4 October, 2015.
2. Benkari, N., Al-Sawwafi M.S. 2015. Documentation of Traditional Omani Settlements: Harat Qasra –Wilayat Rustaq - Al-Batinah. In: *The Exhibition of ICOMOS Scientific Symposium*, Japan , 29 October 2015.
3. El-Gamal, S.E. and Al-Saidy A. 2015. Composites Rebars for Reinforcing Concrete Structures in Regions of Severe Environments. In: *The 15th University Day, Sultan Qaboos University*, Muscat, Oman, 03 May 2015.
4. Al Mazroui S., El-Gamal, S.E., Al-Saidy A. and Al-Nuaimi A. 2015. Upgrading the Flexural Capacity of RC Beams Using Glass Fiber Reinforced Polymers (FRP). In: *The 15th University Day, Sultan Qaboos University*, Muscat, Oman, 03 May 2015.

Cooperation with Local and Foreign Organizations

Prof. Ali Al-Harthy

- Public Authority for Craft Industries, Member Technical Committee for the Establishment of Al Ajyaal College 2014-2017.
- Supreme Council for Planning, Sultanate of Oman, Member Oman National Building Committee, January 2015.

- National Authority for Qualifications and Quality Assurance of Education and Training, Government of the Kingdom of Bahrain, Program Reviewer 2015-2016.
- Institution of Civil Engineers ICE, UK, Organizing Committee 4th Middle East and Africa ICE Convention, Muscat, 19-21 October 2015.

Dr. Benkari Naima

- The Ministry of Heritage and Culture, Oman, March 2014-September 2015.

Dr. Mahmoud Abd El-Gelil

- Department of Earth and Space Science and Engineering, Faculty of Science and Engineering, School of Engineering, York University, 2 August-3 September, 2015.

Dr. Sherif El-Gamal

- Consultancy agreement with Pultron Composites, Dubai, United Arab Emirates, Tensile Properties of New Generation of Glass Fibre Reinforced Polymer (FRP) Bars (CR/ENG/CAED/15/01), 2015.

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

The Society of Civil and Architectural Engineering 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. These include courses on AutoCAD, STAAD-Pro and MATLAB. The society organized the following events in 2015.

1. White City Exhibition, March, 2015.
2. AutoCAD Workshop, 2 November 2015.
3. Workshop on Architectural Photography, 17 November 2015.
4. Workshop on Abstract Photography, 30 November 2015.



Electrical and Computer Engineering



Electrical & Computer Engineering



SUMMARY

The Department of Electrical and Computer Engineering (ECE) is the College's largest department 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 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). The Department also collaborates with the Mechanical and Industrial Engineering Department in offering a jointly B.Sc degree in Mechatronics Engineering. Recently, University Council has approved the establishment of a new specialization track, the Biomedical Signals and Medical Devices, in the Department of Electrical and Computer Engineering.

The Department of Electrical and Computer Engineering emphasizes educational programs that combine comprehensive theory with practice in the electrical and computer engineering field. 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. Engineering design concepts are introduced early in the curriculum, with hands-on activities being enriched through required instructional laboratories. 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 programs are accredited by ABET.

Table C1: Summary

	2014	2015
Faculty	39	39
Support staff	17	17
Total	56	55
On-study leave	2	3
Undergraduate Program		
Enrolment	410	428
Courses offered	134	131
Graduates	114	119
Graduate Program		
Enrolment	37	29
Courses offered	13	19
Graduates	14	13
Research		
Grants (new approved)	5	4
Publications		
Refereed journals	41	36
Conference proceedings	35	50

The ECE Department houses excellent research laboratories and computer facilities that are available for undergraduate as well as graduate students. The graduate programs allow students to deepen their professional knowledge, communication and hands-on skills.

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.

With a fairly large research output in all formats of publications and 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. Within the 2015 academic year, the faculty publications included 36 refereed journal articles, 3 book chapters, 50 full conference proceedings papers, and 6 technical reports. Moreover, ECE faculty organized and delivered many professional short courses, workshops, seminars and invited talks.

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 and Dr. Dawood Al Abri was on a Sabbatical leave starting from September 2015.

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.



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 Communication and Information Research Centre

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

**Dr. Abdulnasir Hossen**

Professor, Assistant Dean for Undergraduate Studies

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. Mohamed Ould-Khaoua**

Professor

Research Interests: Computer Networking, Wireless Mobile Networks, Parallel Architectures, Performance Modelling and Evaluation

**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. Ali Al-Lawati

Associate Professor

Research Interests: Fiber Optic Sensors and Communication, Renewable Energy



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

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



Dr. Amer Al-Habsi

Assistant Professor

Research Interests: Computer Architecture, Statistical Signal Processing, Adaptive Signal Processing



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 (on Sabbatical Leave)

Research Interests: Communications, Computer Networks



Dr. Mohammed M. Bait-Suwailam

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 Ahmed 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 Interest: Power Systems Protections



Dr. Mohamed Magdy

Visiting Consultant

Research Interests: Power Systems, Electrical Machines



Eng. Salem Al-Hinai

Lecturer

Research Interests: Power Systems and Protection, Control Systems



Eng. Taha Al-Saadi

Demonstrator (on study leave)

Research Interest: Control systems

Sayyed Samir Al Busaidi

Lecturer

Research Interest: Telecommunications

Eng. Said Al-Abri

Lecturer (on study leave)

Research Interests: Communication, Control Systems



Eng. Saleem Al-Rashdi
Department Technician 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. Saleh Al-Yazidi
Senior Engineer B

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. Yousef Al-Shuaili

Senior Engineer B

Research Interest: Control Systems



Eng. Nabil Hamza
Lab Supervisor C

Research Interest: Digital Logic Design



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

Technician

Research Interests: Information Technology, Computer Networks

Mrs. Laila Al-Hosni

Administrator

Mrs. Theresa Ragudo

Administrator



DEPARTMENTAL COMMITTEES

Table C2: Departmental Committees

<p>Accreditation</p>	<p>Dr. Nasser Tarhuni (Chair) Dr. Nasser Hosseinzadeh Prof. Afaq Ahmad Dr. Faical Mnif Dr. Hassan Al Lawati Dr. Abdulsalam Elhaffar Dr. Hisham Soliman Mr. I. Mohammed (Secretary)</p>
<p>Curriculum Review and Program Development</p>	<p>Dr. Joseph Jervase (Chair) Dr. Nasser Hosseinzadeh Dr. Zia Nadir Prof. Mohamed Ould-Khaoua Prof. Ibrahim Metwally Prof. Abdulnasir Hossen Dr. Hassan Yousef Dr. Faical Mnif</p>

Final Year Projects	<p>Dr. Mohamed Shafiq (Chair) Dr. Arif Malik Dr. Lazhar Khariji Dr. Tariq Jamil Mr. Salem Al-Hinai Mr. Jabir Al Balushi Mr. Nabil Hamza Mr. Said Al-Hajri Mr. Iftiqar Mohammed</p>
Laboratories and Teaching Facilities	<p>Prof. Ibrahim Metwally (Chair) Dr. Mohamed Shafiq Dr. Medhat Hussein</p>
Health, Safety and Environment	<p>Prof. Ibrahim Metwally (Chair) Dr. Mohamed Shafiq Dr. Medhat Hussein Dr. Mustefa Mesbah Dr. Abdulsalam Elhaffar Mr. Said Al-Hajri Mr. Saleem Al-Rashdi (Superintendent) Mr. Khalaf Al-Ufi Dr. Lazhar Khariji (Chair) Dr. Mahmoud Masoud Mr. Suleiman Al-Kalbani</p>
Human Resources	<p>Dr. Fahad Bait-Shiginah (Chair) Dr. Nasser Hosseinzadeh Dr. Muhammad Al-Nadabi Dr. Hassan Yousef Dr. Ahmed Al-Maashari Dr. Mohammed Al-Badi</p>
Industrial Advisory Board	<p>Dr. Nasser Hosseinzadeh (Chair) Prof. Hadj Bourdoucen Dr. Fahad Bait-Shiginah</p>

<p>Industrial Outreach and Community Relations</p>	<p>Dr. Muhammad Nadabi (Chair) Prof. Hadj Bourdoucen Dr. Fahad Bait-Shiginah Dr. Mohammed Al-Badi Dr. Amir Abdulghani Mr. Salem Al-Hinai Mr. Abbas Tirab Mr. Suleiman Al-Senani</p>
<p>Publications and Web</p>	<p>Dr. Tariq Jamil (Chair) Dr. Mohammed Bait-Suwailam Dr. Abdelsalam Elhaffar Dr. Hisham Soleiman Mr. Said Al-Hajri Mr. Jabir Al-Bulushi</p>
<p>Postgraduate Studies and Research</p>	<p>Dr. Ahmed Al-Maashari (Chair) Dr. Nasser Hosseinzadeh Dr. Hassan Yousef Dr. Mustefa Mesbah Dr. Mohammed Bait-Suwailam Dr. Rashid Al-Abri</p>
<p>Student Advising</p>	<p>Prof. Afaq Ahmed (Chair) Dr. Zia Nadir Mr. Salem Al-Hinai Dr. Mohammed Al-Badi Dr. Hassan Yousef Dr. Ahmed Al-Maashari (Postgraduate) Dr. Rashid Al-Abri (Postgraduate)</p>
<p>Student Society Advisors</p>	<p>Dr. Ashraf Saleem (Chair) Mr. Yousef Al-Shaili Mr. Nabil Hamza</p>

Social Activities	Dr. Mahmoud Masoud (Chair) Dr. Medhat Hussein Dr. Mohammed Bait-Suwailam
Student Staff Liaison	Dr. Nasser Hosseinzadeh (Chair) Dr. Zia Nadir Mr. Salem Al-Hinai Selected students from cohorts
Strategic planning	Prof. Mohamed Ould-Khaoua (Chair) Dr. Nasser Hosseinzadeh Dr. Joseph Jervase Dr. Amir Abdulghani Dr. Hisham Soleiman Prof. Hadj Bourdoucen
Timetabling	Dr. Zia Nadir (Assistant Head, Chair) Dr. Rashid Al-Abri Dr. Hassan Al Lawati Mr. Saleem Al Rashdi 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 2015

Code	Title	Instructor(s)
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE2016	Circuit Analysis I	Dr. Rashid Al-Abri
ECCE2016	Circuit Analysis I	Dr. Rashid Al-Abri
ECCE2016	Circuit Analysis I	Dr. Rashid Al-Abri
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdulsalam El Haffar
ECCE3015	Electrical Engineering Fundamentals	Dr. Mahmoud Masoud
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdulsalam El Haffar
ECCE3015	Electrical Engineering Fundamentals	Dr. Mostefa Mesbah
ECCE3015	Electrical Engineering Fundamentals	Dr. Mostefa Mesbah
ECCE3016	Circuit Analysis II	Dr. Abdulsalam El Haffar
ECCE3016	Circuit Analysis II	Dr. Abdulsalam El Haffar
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3022	Electromagnetics I	Dr. Joseph Jervase

Code	Title	Instructor(s)
ECCE3022	Electromagnetics I	Dr. Hassan Al-Lawati
ECCE3036	Measurements and Instrumentation	Dr. Hassan Yousuf
ECCE3036	Measurements and Instrumentation	Dr. Hassan Yousuf
ECCE3036	Measurements and Instrumentation	Dr. Faical Mnif
ECCE3036	Measurements and Instrumentation	Dr. Faical Mnif
ECCE3142	Signals and Systems	Dr. Lazhar Kheriji
ECCE3152	Electronics I	Dr. Lazhar Kheriji
ECCE3152	Electronics I	Dr. Lazhar Kheriji
ECCE3152	Electronics I	Prof. Hadj Bourdoucen
ECCE3152	Electronics I	Prof. Hadj Bourdoucen
ECCE3206	Digital Logic Design	Dr. Tariq Jamil
ECCE3206	Digital Logic Design	Prof. Afaq Ahmad
ECCE3206	Digital Logic Design	Dr. Muhammed Al-Nadabi
ECCE3206	Digital Logic Design	Dr. Muhammed Al-Nadabi
ECCE3206	Digital Logic Design	Dr. Tariq Jamil
ECCE3206	Digital Logic Design	Prof. Afaq Ahmad
ECCE3258	Applied Engineering Programming	Dr. Midhat Ahmed
ECCE3258	Applied Engineering Programming	Dr. Midhat Ahmed
ECCE3258	Applied Engineering Programming	Dr. Midhat Ahmed
ECCE3352	Electrical Technology	Prof. Abdullah Al-Badi
ECCE3352	Electrical Technology	Prof. Abdullah Al-Badi
ECCE4009	Engineering Design and Professional Skills	Prof. Mohamed Ould-Khaoua
ECCE4009	Engineering Design and Professional Skills	Dr. Ali Al-Shidhani
ECCE4009	Engineering Design and Professional Skills	Dr. Ali Al-Shidhani
ECCE4009	Engineering Design and Professional Skills	Dr. Ali Al-Shidhani
ECCE4022	Electromagnetics II	Dr. Mohammed Bait-Suailam
ECCE4080	Seminar and Field work	Dr. Salim Al-Hinai
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Abdulghani
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Abdulghani

Code	Title	Instructor(s)
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Abdulghani
ECCE4122	Principles of Analog and Digital Communications	Dr. Amir Abdulghani
ECCE4126	Principles of Digital Communications	Dr. Nasser Tarhuni
ECCE4142	Digital Signal Processing	Prof. Abdulnasir Hossen
ECCE4142	Digital Signal Processing	Prof. Abdulnasir Hossen
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4227	Embedded Systems	Prof. Afaq Ahmad
ECCE4227	Embedded Systems	Dr. Midhat Ahmed
ECCE4227	Embedded Systems	Prof. Afaq Ahmad
ECCE4242	Introduction to Computer Networks	Dr. Dawood Al-Abri
ECCE4242	Introduction to Computer Networks	Dr. Dawood Al-Abri
ECCE4254	Operating Systems	Prof. Mohamed Ould-Khaoua
ECCE4257	Applied Algorithmsfor ECE	Dr. Fahad Bait Shiginah
ECCE4312	Power System Analysis I	Dr. Mohammed Al-Badi
ECCE4312	Power System Analysis I	Dr. Mohammed Al-Badi
ECCE4356	Electrical Machines I	Dr. Hisham Soliman
ECCE4356	Electrical Machines I	Dr. Dr. Hisham Soliman
ECCE4357	Electrical Machines II	Dr. Mahmoud Masoud
ECCE4416	Linear Control Systems	Dr. Mostefa Mesbah
ECCE4416	Linear Control Systems	Dr. Hassan Yousuf
ECCE4416	Linear Control Systems	Dr. Hassan Yousuf
ECCE4436	Industrial Control System Design	Dr. Mohammed Shafiq
ECCE4455	Sensors and Actuators	Dr. Ashraf Saleem
ECCE4455	Sensors and Actuators	Dr. Ashraf Saleem
ECCE5004	Engineering Management and Economics I	Dr. Arif Malik
ECCE5004	Engineering Management and Economics I	Dr. Arif Malik
ECCE5099	Project (Part II)	Dr. Mohammed Shafiq
ECCE5099	Project (Part II)	Dr. Mohammed Shafiq

Code	Title	Instructor(s)
ECCE5099	Project (Part II)	Dr. Mohammed Shafiq
ECCE5124	Wireless Communications	Dr. Nasser Tarhuni
ECCE5160	Antenna Modeling and Measurement Techniques	Dr. Mohammed Bait-Suwailam
ECCE5214	Advanced Logic and Computer Interfacing	Dr. Ahmed Al Maashri
ECCE5214	Advanced Logic and Computer Interfacing	Dr. Ahmed Al Maashri
ECCE5215	Computing Systems for Eng. Applications	Dr. Ahmed Al Maashri
ECCE5215	Computing Systems for Eng. Applications	Dr. Ahmed Al Maashri
ECCE5223	Advanced Embedded Systems Design	Prof. Mohamed Ould-Khaoua
ECCE5231	Industrial Networks and Operating Systems	Dr. Dawood Al-Abri
ECCE5231	Industrial Networks and Operating Systems	Dr. Dawood Al-Abri
ECCE5232	Computer Architecture and Organization I	Dr. Tariq Jamil
ECCE5265	Databases Engineering and Application	Dr. Fahad Bait Shiginah
ECCE5265	Databases Engineering and Application	Dr. Fahad Bait Shiginah
ECCE5302	Power System Protection	Dr. Abdulsalam Al Haffar
ECCE5303	Power Distribution System Engineering	Dr. Hisham Mohammad Soliman
ECCE5315	Smart Grid	Dr. Nasser Hosseinzadeh
ECCE5315	Smart Grid	Dr. Nasser Hosseinzadeh
ECCE5332	High Voltage Engineering	Prof. Ibrahim Metwally
ECCE5432	Programmable Logic Control Systems	Dr. Mohammed Shafiq
ECCE5433	Modern Control Systems	Dr. Faical Mnif
ENGR1501	Introduction to Engineering	Mr. Taha Al Saadi
ENGR1501	Introduction to Engineering	Mr. Taha Al Saadi
ENGR1600	Workshop I	Dr. Mohammad Al-Hadrami
ENGR2216	Fortran Programming for Engineers	Dr. Mohammed Shafiq
ENGR2216	Fortran Programming for Engineers	Dr. Mohammed Shafiq
ENGR2216	Fortran Programming for Engineers	Dr. Dawood Al-Abri
ENGR2216	Fortran Programming for Engineers	Dr. Dawood Al-Abri
MCTE4145	Instrumentation and Measurement	Dr. Ashraf Saleem
MCTE4155	Instrumentation and Measurement	Dr. Ashraf Saleem

Code	Title	Instructor(s)
MCTE4250	Linear Control Systems	Dr. Faical Mnif
MCTE4250	Linear Control Systems	Dr. Faical Mnif

Table C4: Courses Offered in Fall 2015

Code	Title	Instructor(s)
ECCE2016	Circuit Analysis I	Dr. Mohammed Shafiq
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE2016	Circuit Analysis I	Dr. Amir Mohamed Abdulghani
ECCE2016	Circuit Analysis I	Dr. Hassan Al-Lawati
ECCE2016	Circuit Analysis I	Dr. Amir Mohamed Abdulghani
ECCE2016	Circuit Analysis I	Dr. Mohammed Shafiq
ECCE3015	Electrical Engineering Fundamentals	Dr. Hisham Soliman
ECCE3015	Electrical Engineering Fundamentals	Dr. Hisham Soliman
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdulsalam Mohammed
ECCE3015	Electrical Engineering Fundamentals	Dr. Abdulsalam Mohammed
ECCE3016	Circuit Analysis II	Dr. Mahmoud Masoud
ECCE3016	Circuit Analysis II	Dr. Mahmoud Masoud
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3016	Circuit Analysis II	Dr. Khalid Al Mutawali
ECCE3016	Circuit Analysis II	Dr. Tariq Jamil
ECCE3016	Circuit Analysis II	Prof. Ibrahim Metwally
ECCE3016	Circuit Analysis II	Dr. Khalid Al Mutawali
ECCE3016	Circuit Analysis II	Dr. Tariq Jamil
ECCE3022	Electromagnetics I	Prof. Ibrahim Metwally
ECCE3022	Electromagnetics I	Dr. Hassan Al-Lawati
ECCE3022	Electromagnetics I	Prof. Ibrahim Metwally
ECCE3022	Electromagnetics I	Dr. Hassan Al-Lawati
ECCE3036	Measurements and Instrumentation	Dr. Khalid Al Mutawali
ECCE3036	Measurements and Instrumentation	Dr. Khalid Al Mutawali

Code	Title	Instructor(s)
ECCE3036	Measurements and Instrumentation	Dr. Ashraf Saleem
ECCE3036	Measurements and Instrumentation	Dr. Ashraf Saleem
ECCE3142	Signals and Systems	Dr. Mostefa Mesbah
ECCE3142	Signals and Systems	Dr. Mostefa Mesbah
ECCE3152	Electronics I	Dr. Ali Mohamed Al Lawati
ECCE3152	Electronics I	Dr. Ali Mohamed Al Lawati
ECCE3152	Electronics I	Dr. Nasser Tarhuni
ECCE3152	Electronics I	Dr. Nasser Tarhuni
ECCE3206	Digital Logic Design	Dr. Lazhar Kheriji
ECCE3206	Digital Logic Design	Dr. Lazhar Kheriji
ECCE3206	Digital Logic Design	Prof. Afaq Ahmad
ECCE3206	Digital Logic Design	Prof. Afaq Ahmad
ECCE3206	Digital Logic Design	Dr. Fahad Awadh Bait Shiginah
ECCE3206	Digital Logic Design	Dr. Muhammed Said Al-Nadabi
ECCE3206	Digital Logic Design	Dr. Fahad Awadh Bait Shiginah
ECCE3206	Digital Logic Design	Dr. Muhammed Said Al-Nadabi
ECCE3258	Applied Engineering Programming	Dr. Tariq Jamil
ECCE3258	Applied Engineering Programming	Dr. Tariq Jamil
ECCE3352	Electrical Technolog	Prof. Abdullah Hamed Al-Badi
ECCE3352	Electrical Technolog	Prof. Abdullah Hamed Al-Badi
ECCE4009	Engineering Design	Prof. Mohamed Ould-Khaoua
ECCE4009	Engineering Design	Prof. Mohamed Ould-Khaoua
ECCE4022	Electromagnetics II	Dr. Mohammed Bait-Suwailam
ECCE4022	Electromagnetics II	Dr. Mohammed Bait-Suwailam
ECCE4080	Seminar and Field work	Dr. Salim Mohammed Al-Hinai
ECCE4080	Seminar and Field work	Dr. Salim Mohammed Al-Hinai
ECCE4122	Analog and Digital Communications	Dr. Joseph Jervase
ECCE4122	Analog and Digital Communications	Dr. Amir Mohamed Abdulghani
ECCE4122	Analog and Digital Communications	Dr. Nasser Tarhuni

Code	Title	Instructor(s)
ECCE4122	Analog and Digital Communications	Dr. Joseph Jervase
ECCE4122	Analog and Digital Communications	Dr. Amir Mohamed Abdulghani
ECCE4122	Analog and Digital Communications	Dr. Nasser Tarhuni
ECCE4142	Digital Signal Processing	Dr. Mostefa Mesbah
ECCE4142	Digital Signal Processing	Dr. Mostefa Mesbah
ECCE4142	Digital Signal Processing	Dr. Mostefa Mesbah
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4158	Electronics II	Dr. Zia Nadir
ECCE4227	Embedded System	Dr. Ahmed Said Al Maashri
ECCE4227	Embedded System	Dr. Ahmed Said Al Maashri
ECCE4227	Embedded System	Prof. Afaq Ahmad
ECCE4227	Embedded System	Prof. Afaq Ahmad
ECCE4242	Computer Networks I	Dr. Ahmed Said Al Maashri
ECCE4242	Computer Networks I	Dr. Ahmed Said Al Maashri
ECCE4253	Object Programming	Dr. Fahad Awadh Bait Shiginah
ECCE4253	Object Programming	Dr. Fahad Awadh Bait Shiginah
ECCE4272	Artificial Intelligence	Prof. Abdulnasir Yahya Hossen
ECCE4272	Artificial Intelligence	Prof. Abdulnasir Yahya Hossen
ECCE4312	Power I	Dr. Hisham Soliman
ECCE4312	Power I	Dr. Hisham Soliman
ECCE4316	Power II	Dr. Mohammed Al-Badi
ECCE4316	Power II	Dr. Mohammed Al-Badi
ECCE4316	Power II	Dr. Mohammed Al-Badi
ECCE4356	Electrical Machines I	Dr. Mohammed Magdy
ECCE4356	Electrical Machines I	Dr. Mohammed Magdy
ECCE4356	Electrical Machines I	Dr. Mohammed Magdy
ECCE4356	Electrical Machines I	Dr. Mohammed Magdy

Code	Title	Instructor(s)
ECCE4357	Electrical Machines II	Dr. Mahmoud Masoud
ECCE4357	Electrical Machines II	Dr. Mahmoud Masoud
ECCE4416	Linear Control System	Dr. Faical Mnif
ECCE4416	Linear Control System	Dr. Khalid Al Mutawali
ECCE4416	Linear Control System	Dr. Hassan Yousuf
ECCE4416	Linear Control System	Dr. Khalid Al Mutawali
ECCE4416	Linear Control System	Dr. Hassan Yousuf
ECCE4416	Linear Control System	Dr. Faical Mnif
ECCE4422	Digital Control System	Dr. Faical Mnif
ECCE4422	Digital Control System	Dr. Faical Mnif
ECCE4467	Power Electronics	Dr. Rashid Said Al-Abri
ECCE4467	Power Electronics	Dr. Rashid Said Al-Abri
ECCE4467	Power Electronics	Dr. Rashid Said Al-Abri
ECCE4467	Power Electronics	Dr. Rashid Said Al-Abri
ECCE5004	Engineering Management and Economics I	Dr. Arif Saeed Malik
ECCE5004	Engineering Management and Economics I	Dr. Arif Saeed Malik
ECCE5004	Engineering Management and Economics I	Dr. Arif Saeed Malik
ECCE5004	Engineering Management and Economics I	Dr. Arif Saeed Malik
ECCE5009	Project I	Dr. Mohammed Shafiq
ECCE5009	Project I	Dr. Mohammed Shafiq
ECCE5009	Project I	Dr. Mohammed Shafiq
ECCE5112	Antennas	Dr. Joseph Jervase
ECCE5112	Antennas	Dr. Joseph Jervase
ECCE5123	Optical Communications	Dr. Ali Al Lawati
ECCE5123	Optical Communications	Dr. Ali Al Lawati
ECCE5231	Industrial Networks	Dr. Midhat Hussain
ECCE5231	Industrial Networks	Dr. Midhat Hussain
ECCE5242	Advanced Computer Networks	Prof. Mohamed Ould-Khaoua
ECCE5242	Advanced Computer Networks	Prof. Mohamed Ould-Khaoua

Code	Title	Instructor(s)
ECCE5314	Special Topics in Power	Dr. Mohammed Al-Badi
ECCE5322	Power System Quality	Dr. Mohammed Magdy
ECCE5322	Power System Quality	Dr. Mohammed Magdy
ECCE5452	Computer Aided Instrumentations	Prof. Hadj Bourdoucen
ECCE5452	Computer Aided Instrumentations	Prof. Hadj Bourdoucen
ENGR15011	Introduction to Engineering	Dr. Muhammad Al-Nadabi
ENGR15011	Introduction to Engineering	Dr. Muhammad Al-Nadabi
ENGR15011	Introduction to Engineering	Dr. Muhammad Al-Nadabi
ENGR2216	Fortran Programming	Dr. Medhat Hussain
ENGR2216	Fortran Programming	Dr. Mohammed Shafiq
ENGR2216	Fortran Programming	Dr. Lazhar Kheriji
ENGR3006	Industrial Training	Dr. Salim Mohammed Al-Hinai
MCTE3110	Electronics	Dr. Lazhar Kheriji
MCTE3210	Electromechanical Systems and Actuators	Dr. Ashraf Saleem



POSTGRADUATE STUDIES

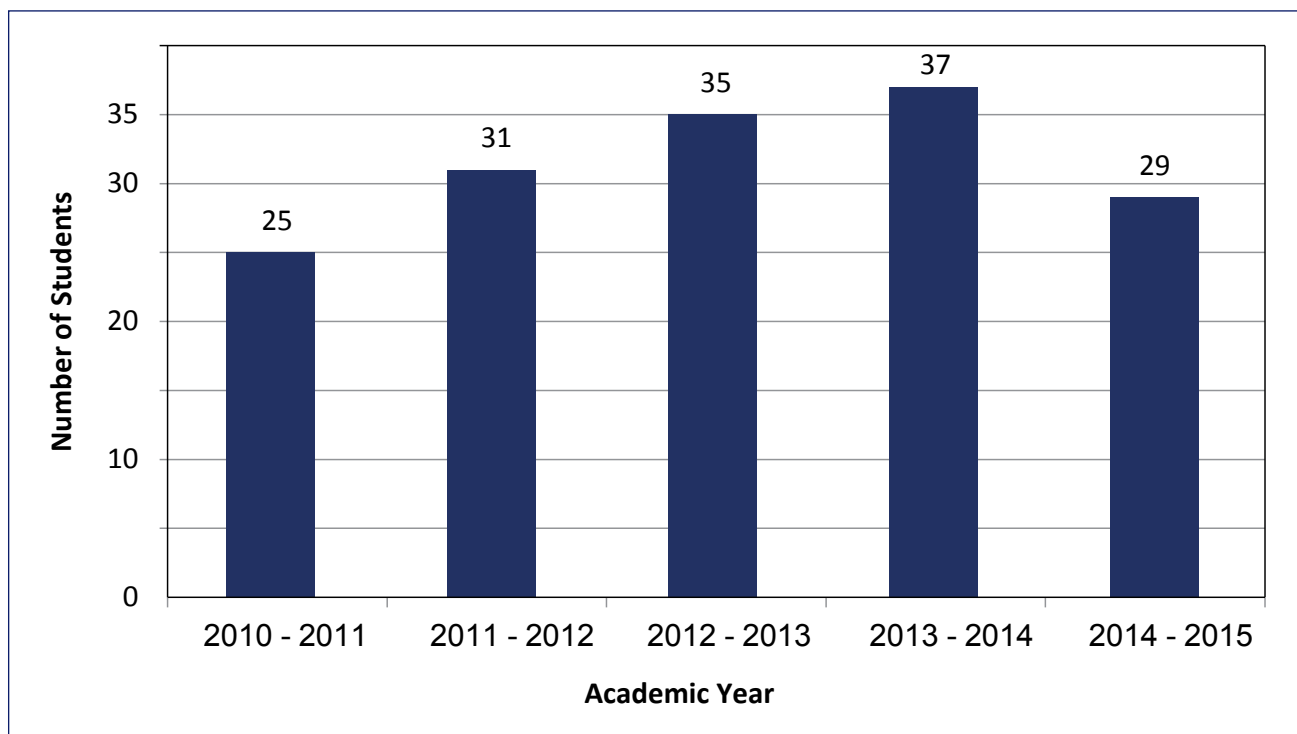


Figure C1: Postgraduate Students' Enrolment for the Past Five Years

Courses

Table C5: Postgraduate Courses Offered in Year 2015

Semester	Code	Title	Instructor(s)
Spring 2015	ECCE6122	Digital Signal Processing	Dr. Amur Al-Habsi
	ECCE6124	Digital Transmission	Dr. Nasser Tarhuni
	ECCE6213	Directed Studies	Prof. Afaq Ahmad
	ECC6315	Power System Analysis	Dr. Mohammed Al-Badi
	ECCE6430	Advanced Power Electronics	Dr. Rashid Al-Abri
	ECCE7000	Project	Prof. Afaq Ahmad
	ECCE8001	PhD Thesis	Prof. Afaq Ahmad
Fall 2015	ECCE6132	Linear System Theory	Dr. Mohammed Shafiq
	ECCE6314	Special Topics in Communications	Dr. Mohammed Bait-Suwailam
	ECCE6213	Directed Studies	Dr. Mohammed Bait-Suwailam
	ECCE6250	Digital Image Processing	Dr. Muhammed Al-Nadabi
	ECCE6262	Real Time Systems	Dr. Midhat Hussain
	ECCE6316	Power System Stability	Dr. Nasser Hosseinzadeh
	ECCE6492	Selected Topics in Control	Dr. Hassan Yousef
	ECCE7000	Project	Dr. Ahmed Al Maashari
	ECCE8001	PhD Thesis	Prof. Afaq Ahmad

Postgraduate Students' Projects

Table C6: Students' Projects in Year 2015

No	Student Name	Project Title
1	Osama Rehman	Efficient Link Quality-Based Message Dissemination Schemes for Vehicular Ad Hoc Networks
2	Mohamed Ahsan Rizvi	Optimal Test Pattern Generator Scheme for BIST Environment
3	Ibrahim Al Maawali	Performance Analysis of Quality of Service in Long Term Evolution - Advanced Heterogeneous Networks
4	Haiffa Al Hassani	Investigation of Wireless Honey Pots in Detecting Attacks on WLAN

No	Student Name	Project Title
5	Yousuf Al Jabri	Voltage Stability Assessment of A Micro-Grid Case Study: Khasab Power System in Oman
6	Muhammad Saleheen Aftab	Lyapunov Function Based Neuro-Adaptive Inverse Control
7	Nooriya Al Bulushi	Impact of Wormhole Attack Against Routing Protocols on MANETs Performance
8	Abdullah Al Shereiqi	Implementation and Power Flow Analysis of a Multi-Microgrid in Oman's Rural Power System
9	Yaqoub Al Shamli	Design of a Fuzzy Logic Power System Stabilizer for the Main Interconnected System of Oman
10	Ahmed Al Shaqsi	Toward Smart Grid Transformation-A case Study in Oman
11	Fahad Nasser Al Farsi	Economic Dispatch in the Main Interconnected System of Oman



RESEARCH

Grants and Contracts

Table C7: New Grants, Contracts and Consultancies by Faculty Members in Year 2015

Research Title	Principal Investigator	Budget (OMR)	Funded By
Low-Power Hardware Architecture for Securing Wireless Sensor Networks	Dr. Ahmed Al-Maashari	4,000	SQU
Modeling and Control of Piezoelectric Ultrasonic Actuator in Ultrasonically Assisted Machining	Dr. Ashraf Saleem	8,000	SQU
Five-Phase AC-DC Converter Suitable for Wind Energy Applications	Dr. Mahmoud Masoud	4,800	SQU
Combined Renewable and Pumped Hydro Storage in Duqm	Dr. Mohammed Al Badi	4,000	Rent-A-Port Energy

Publications

Refereed Journal Papers

1. Ahmad, A. and Al-Habsi, A.H. 2015. Design of a Built-In Multi-Mode ICs Tester with Higher Testability Features-A most Suitable Testing Tool for BIST Environment. *IETC Technical Review*, 15(4):283-288.
2. Ahmad, A., Rizvi, M.A.K., Mohanan, N. and Ahmad, S. 2015. Current ISBN System-Learning and Practicing via Simulation. *International Journal of Applied Engineering Research*, 10(18):39138-39144.
3. Albadi, M.H., Al-Mashaikhi, N., Al Hinai, S., Al-Abri, R., Al-Hinai, A., Al-Aamri, Q., Al-Mazidi, A. and Al-Gafri, M. 2015. Loss Reduction in Isolated Rural Area Distribution Network Using Photovoltaic System. *The Journal of Engineering Research*, 12(2):51-59.
4. Al-Mezeini, N., Manickavasagan, A., Al-Yahyai, R., Al-Wahaibi, A., Al-Raeesi, A. and Khrijji, L. 2015. X-Ray Imaging of Stored Dates to Detect Infestation by Saw-Toothed Beetles. *International Journal of Fruit Science Taylor & Francis*, 16(1):42-56.
5. Awadalla, M. 2015. Power Efficient Scheduling Scheme Based on PSO for Real Time Systems. *International Journal of Computer Applications*, 111(4):24-30.
6. Awadalla, M. 2015. Processor Speed Control for Power Reduction of Real-Time Systems. *International Journal of Electrical and Computer Engineering*, 5(4):701-713.
7. Awadalla, M. and Konsowa, H. 2015. Performance Enhancement of Multicore Architecture. *International Journal of Electrical and Computer Engineering*, 5(4):669-684.
8. Awadalla, M. and Sadek, A. 2015. An Efficient Cache Organization for On-Chip Multiprocessor Networks. *International Journal of Electrical and Computer Engineering*, 5(3):503-517.
9. Awadalla, M., Al-Abri, D. and Al-Busaidi, S. 2015. Survey: Real Time Scheduling Techniques for Energy Efficient Multiprocessor Systems. *International Journal of Control Theory and Applications*, 8(2):733-748.
10. Awadalla, M., Al-Abri, D., Al-Lawati, A. and Al-Busaidi, S. 2015. System Identification Based on Heuristic Approaches. *International Journal of Control Theory and Applications*, 8(2):715-731.
11. Awadalla, M., Al-khazraji, A. and Al-Delimi, K. 2015. Co-operating Mobile Robots Approaches. *International Journal of Control Theory and Applications*, 8(2):689-705.
12. Bait-Suwailam, M. 2015. Electromagnetic Field Detector Circuit for Low-Frequency Energy Applications. *The Journal of Engineering Research*, 12 (1):70-80.

13. Benzaouia, A., Soliman, H. and Saleem, A. 2015. Regional Pole Placement with Saturated Control for DC-DC Buck Converter through Hardware-In-the-Loop. *Transactions of the Institute of Measurement and Control*, 10(1177):1-12.
14. Charabi, Y. and Al-Badi, A., 2015. Creating an Enabling Environment for Renewable Energy Application in the Sultanate of Oman. *International Journal of Green Energy*, 12:1169-1177.
15. Laxman, K., Al Gharibi, L., Bourdoucen, H. and Dutta J. 2015. Asymmetric Electrodes: Role of Specific Capacitance in Determining the Equilibrium Salt Adsorption Capacity in Multimodal Porous Materials. *The Journal of Engineering Research*, 12:22-31.
16. Mahjoub, S., Mnif, F. and Derbel, N. 2015. Second Order Sliding Mode Control Applied to Inverted Pendulum. *International Journal of Automation and Computing*, 4(2):134-141.
17. Mahjoub, S., Mnif, F., Derbel N. and Hamerlain, M. 2015. Radial-Basis Functions Neural Network Sliding Mode Control for Underactuated Manipulators. *Springer-International Journal of Dynamics and Control*, 12(2):533-541.
18. Masoud, M. 2015. Fully Controlled 5-Phase, 10-Pulse, Line Commutated Rectifier. *Elsevier-Alexandria Engineering Journal*, 54:1091-1104.
19. Masoud, M. and Abdel-khalik, A.S. 2015. Performance Evaluation of Eleven-Phase Induction Machine with Different PWM Techniques. *The Journal of Engineering Research*, 12:1-14.
20. Ravikumar, P., Al-Hinai, A. and Feliachi, A. 2015. Coordinated Control of Distributed Energy Resources to Support Load Frequency Control. *The Journal of Energy Conversion and Management*, 105:918-928.
21. Rehman, O.M., Ould-Khaoua, M. and Bourdoucen, H. 2015. Performance Evaluation of Broadcast Beacons in VANETs over Road Intersections and Roundabouts. *Global Journal on Technology*, 8:133-142.
22. Rehman, O., Ould-Khaoua, M. and Bourdoucen, H. 2015. Link Quality Estimation in VANETs for Multi-Hop Alert Messages Dissemination. *International Journal of Communication Networks and Distributed Systems*, 15(4):313-335.
23. Saleem, A., Tahab, B., Tutunji, T. and Al-Qaisia, A. 2015. Identification and Cascade Control of Servo-Pneumatic System using Particle Swarm Optimization. *Simulation Modelling Practice and Theory*, 52:164-179.
24. Saleh, K., Zeineldin, H., Al-Hinai, A. and El-Saadany, E. 2015. Dual-Setting Characteristic for Directional Overcurrent Relays Considering Multiple Fault Locations. *IET Generation, Transmission & Distribution*, 9 (12):1332-1340.

25. Saleh, K.A., Zeineldin, H., Al-Hinai, A. and El-Saadany, E. 2015. Optimal Coordination of Directional Overcurrent Relays Using a New Time-Current-Voltage Characteristic. *IEEE Transactions on Power Delivery*, 30:537-544.
26. Sarrab, M. and Bourdoucen, H. 2015. Mobile Cloud Computing: Security Issues and Considerations. *Journal of Advances in Information Technology*, 6:248-251.
27. Soliman, H.M. 2015. Resilient Observer-Based Power System Stabilizers. *Transactions of the Institute of Measurement and Control*, 10(1177):1-11.
28. Soliman, H.M. and Shafiq, M. 2015. Robust Stabilization of Power Systems with Random Abrupt Changes. *IET Generation Transmission and Distribution*, 9:2159-2166.
29. Soliman, H.M. and Yousef, H. 2015. Design of Saturated Robust Power System Stabilizers. *International Journal of Electrical Power and Energy Systems*, 73:608-614.
30. Soliman, H.M., Benzaouia, A. and Yousef, H. 2015. Saturated Robust Control with Regional Pole Placement and Guaranteed Cost Constraints: Application to Car Active Suspension. *Journal of Vibration and Control*, 10(1177):1-12.
31. Tarhuni, N., Elkalashy, N., Kawady, T. and Lehtonen, M. 2015. Autonomous Control Strategy for Fault Management in Distribution Networks. *Electric Power Systems Research*, 121:252-259.
32. Touati, F., Erdene-Ochir, O., Mehmood, W., Hassan, A., BenMnaouer, A., Gaabab, B., Rasid, M.F.A. and Khriji, L. 2015. An Experimental Performance Evaluation and Compatibility Study of the Bluetooth Low Energy Based Platform for ECG Monitoring in WBANs. *International Journal of Distributed Sensor Networks*, 2015(645781):1-12.
33. Tutunji, T. and Saleem, A. 2015. A Methodology for Identification and Control of Electro-Mechanical Actuators. *Methods X*, 2:219-231.
34. Yousef, H. 2015. Adaptive Fuzzy Logic Load Frequency Control of Multi-Area Power System. *International Journal of Electric Power and Energy Systems*, 68:384-395.
35. Yousef, H. 2015. Design of Adaptive Fuzzy-Based Tracking Control of Input Time Delay Nonlinear Systems. *Nonlinear Dynamics*, 79:417-426.
36. Yousef, H. and Soliman, H.M. 2015. Robust Flatness-Based Tracking Control for Brushless DC Motor Drives. *Journal of Vibration and Control*, 16:3254-3265.

Refereed Conference papers

1. Aftab, M.S., Shafiq, M. and Yousef, H. 2015. Lyapunov Stability Criterion Based Neural Inverse Tracking for Unknown Dynamic Plants. In: *Proceedings of the IEEE International Conference on Industrial Technology*, Seville, Spain, 17-19 March 2015.
2. Ahmad, A., Ahmad, S., Al-Abri, D., Jamil, T. and Rizvi, M.A.K. 2015. A Heuristic Approach towards the Designs of Digital Logic Circuits in Built-In Test Environment with Optimal Solution. In: *Proceedings of the Sixth International Conference on Computing, Communications and Networking Technologies*, Denton, USA, 13-15 July 2015.
3. Ahmad, A., Al-Busaidi, S.S., Al Lawati, A., Al Maashri, A. and Tarhuni, N. 2015. On Energy Efficient Cryptographic Keys. In: *Proceedings of the National Symposium on Innovations in Information Technology*, Muscat, Oman, 28-29 April 2015.
4. Ahmad, A., Jamil, T., Ahmad, S. and Abdulghani, A.A. 2015. About a FOSS for the Teaching of FORTRAN Programming Language Course. In: *Proceedings of the Free and Open Source Software Conference*, Muscat Oman, 18-19 February 2015.
5. Ahmad, A., Rizvi, M.A.K., Al-Lawati, A., Mohammed, I. and Malik, A.S. 2015. Graph Theoretic Incidence Matrix Approach for Evaluating Reliability of Complex Mechatronic Systems via a MATLAB based Developed Tool. In: *Proceedings of the 8th IEEE-GCC Conference*, Muscat, Oman, 1-4 February 2015.
6. Ahmad, A., Ruelens, D., Ahmad, S. and Pathuri, L. 2015. Determining the Possible Minimal Boolean Expressions via a Newly Developed Procedure and Tool. In: *Proceedings of the Sixth International Conference on Computing, Communications and Networking Technologies*, Denton, USA, 13-15 July 2015.
7. Al Abdulsalam, N., Al-Hajri, R., Al-Abri, Z., Al-Lawati, Z. and Bait-Suwailam, M. 2015. Design and Implementation of a Vehicle to Vehicle Communication System using Li-Fi Technology. In: *Proceedings of the International Conference on Information and Communication Technology Research*, Abu Dhabi, UAE, 17-19 May 2015.
8. Al Abri, D. 2015. Detection of MITM Attack in LAN Environment using Payload Matching. In: *Proceedings of the IEEE International Conference on Industrial Technology*, Seville, Spain, 17-19 March 2015.
9. Al Farsi, F.N., Albadi, M.H., Hosseinzadeh, N. and Al Badi, A.H. 2015. Economic Dispatch in Power Systems- A Comparison between Vertically Integrated and Liberalized Markets. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
10. Al Kalbani, J., Suwailam, R.B., Al Yafai, A., Al Abri, D. and Awadalla, M. 2015. Bus Detection System for Blind People using RFID. In: *Proceedings of the IEEE 8th GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.

11. Al Maamari, M., Al Badi, S., Saleem, A., Mesbah, M. and Hassan, E. 2015. Design of a Brain Controlled Hand Exoskeleton for Patients with Motor Neuron Diseases. In: *Proceedings of the 10th IEEE International Symposium on Mechatronics and its Application*, UAE, 8-10 December 2015.
12. Al Shidhani, A., Al Maashri, A., Al-Abri, D., Bait-Shiginah, F. and Al-Hinai, S. 2015. ECE First: An Attempt to Reinstate the Favorability of ECE Program. In: *Proceedings of the IEEE 8th GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
13. Albadi, M.H., Al Hinai, A.S., Al-Badi, A.H., Al Riyami, M.S., Al Hinai, S.M. and Al Abri, R.S. 2015. Unbalance in Power Systems-Review and Oman MIS Case Study. In: *Proceedings of the IEEE International Conference on Industrial Technology*, Seville, Spain, 17-19, March 2015.
14. Al-Busaidi, A., Khriji, L., Touati F., Rasid M.F.A. and Ben Mnaouer, A. 2015. Real-Time DWT-Based Compression for Wearable Electrocardiogram Monitoring System. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
15. Al-Busaidi, A.M. and Khriji, L. 2015. Packet-size-Controlled ECG Compression Algorithm Based on Discrete Wavelet Transform and Running Length Encoding. In: *Proceedings of the 8th International Joint Conference on Biomedical Engineering Systems and Technologies*, Lisbon, Portugal, 12-15 January 2015.
16. Al-Busaidi, A.M. and Khriji, L., 2015. Wireless Health Monitoring Challenges: Compression Level. In: *Proceedings of the International Conference on Control Automation and Applied Mechanics*, Sousse, Tunisia, 20-21 January 2015.
17. Al-Busaidi, A.M., Khriji, L. and Hossen, A.Y. 2015. Cardiac Arrhythmias Classification and Compression using a Hybrid Technique. In: *Proceedings of the BIOSTEC 2015-Doctoral Consortium of the 8th International Joint Conference on Biomedical Engineering Systems and Technologies*, Lisbon, Portugal, 12-15 January 2015.
18. Al-Lawati, A., Al-Jahdhami, S., Al-Belushi, A., Al-Adawi, D., Awadalla, M. and Al-Abri, D. 2015. RFID-Based System for School Children Transportation Safety Enhancement. In: *Proceedings of the IEEE 8th GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
19. Al-Ratrout, S., Saleem, A. and Soliman, H. 2015. Optimization Methods In Fractional Order Control of Electric Drives: A Comparative Study. In: *Proceedings of the 10th IEEE International Symposium on Mechatronics and its Application*, UAE, 8-10 December 2015.
20. Al-Shamli, Y., Hosseinzadeh, N., Yousef, H. and Al-Hinai, A. 2015. A Review of Concepts in Power System Stability. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.

21. Alyammahi, H.A. and Al-Hinai, A.S. 2015. Intelligent Frequency Control using Optimal Tuning and Demand Response in an AC Microgrid. In: *Proceedings of the International Conference on Composite Materials and Renewable Energy Applications*, Italy, Rome, 23-24 March 2015.
22. Ampofo, D.O., Al-Hinai, A.S. and El Moursi, M.S. 2015. Utilization of Reactive Power Resources of Distributed Generation for Voltage Collapse Prevention in Optimal Power Flow. In: *Proceedings of the International Conference on Composite Materials and Renewable Energy Application*, Italy, Rome, 23-24 March 2015.
23. Bait-Suwailam, M., Al-Abri, D., Teirab, A., Jervase, J. and Nadir, Z. 2015. Electromagnetic Interference (EMI) Radiation from Airflow Openings in Personal Computers Shielded Enclosures: An Experimental Study. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
24. Dabour, S. and Masoud, M.I. 2015. Investigation of Five-Phase Induction Motor Drive under Faulty Inverter Conditions. In: *Proceedings of the 8th IEEE GCC Conference*, Muscat, Oman, 1-4 February 2015.
25. Huchel, L., Zeineldin, H. and Al-Hinai, A. 2015. Influence of Generation Scheduling on Power System Protection and Stability. In: *Proceedings of the UAE Graduate Students Research Conference 2015*, Abu Dhabi, U.A.E., 22-24 March 2015.
26. Jamil, T. 2015. Incorporating FPGA-Based Labs within Digital Design Course- A Middle-Eastern Experience. In: *Proceedings of the Science and Information Conference*, London, U.K., 28-30 July 2015.
27. Klimontowicz, M., Al-Hinai, A. and Peng, J. 2015. Decentralized Sliding Mode Control for Load Frequency Problem in Three- Area Power Systems. In: *Proceedings of the 8th IEEE-GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
28. Kordestani, M.A., Ahmad, A. and Bourdoucen, H. 2015. A Review of CRC Mechanisms and FOSS Algorithms. In: *Proceedings of the Free and Open Source Software Conference*, Muscat, Oman, 18-19 February 2015.
29. Malik, A., Al Badi, M., Al Kahali, A., Al Nabhani, Y., Al Bahri, A. and Al Barhi, H. 2015. A Methodology of Ranking Renewable Energy Alternatives using AHP and their Sensitivity with Respect to Criteria Weights. In: *Proceedings of the Saudi Arabia Smart Grid Conference on Smart Grids and Sustainable Energy*, Jeddah, Saudi Arabia, 7-9 December 2015.
30. Masoud, M.I. and Abdel-khalik, A.S. 2015. Vector Controlled Five-Phase Induction Motor: Performance Evaluation with Harmonic Injection for Different Stator Winding Connection. In: *Proceedings of the International Conference on Industrial Technology*, Seville, Spain, 17-19 March 2015.
31. Masoud, M.I. and Dabour, S., 2015. Investigation of Five-Phase Induction Motor Drive under Faulty Inverter Conditions. In: *Proceedings of the International Conference on Industrial Technology*, Seville, Spain, 17-19 March 2015.

32. Masoud, M.I., 2015. Five-Phase Uncontrolled Line Commutated Rectifier: AC Side Compensation using Shunt Active Power Filter. In: *Proceedings of the 8th IEEE GCC Conference*, Muscat, Oman, 1-4 February 2015.
33. Masoud, M.I., 2015. Street Lighting using Solar Powered LED Light Technology: Sultan Qaboos University Case Study. In: *Proceedings of the 8th IEEE GCC Conference*, Muscat, Oman, 1-4 February 2015.
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37. Nadir, Z. and Ahmad, M. 2015. Pathloss Measurements and Prediction using Statistical Models. In: *Proceedings of the 2nd International Conference on Mechatronics, Electronics and Automation Engineering* Bangkok, Thailand, 23-25 August 2015.
38. Pathuri, L., Al Maashri, A., Ahmad, A., Ould Khaoua, M. and Awadalla, M. 2015. Securing Wireless Sensor Networks using Customized Hardware Crypto Engine. In: *Proceedings of the National Symposium on Innovations in Information Technology, College of Applied Sciences-Sohar, Ministry of Higher Education*, Sultanate of Oman, 28-29 April 2015.
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40. Rehman, O., Bourdoucen, H. and Ould-Khaoua, M. 2015. Performance Impact of Relay Cardinality on Sender-Driven Messages Dissemination in VANETs. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Oman, 1-4 February 2015.
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46. Shafiq, M., Yousef, H. and Al-Saadi, T. 2015. A Time Efficient Nonlinear Tracking Controller. In: *Proceedings of the IEEE International Conference on Industrial Technology*, Seville, Spain, 17-19 March 2015.
47. Shakeel, S., Rehman, O., Ould-Khaoua, M. and Bourdoucen, H. 2015. Open Source Software *Support* for Field Experiments of Vehicular Ad Hoc Networks. In: *Proceedings of the 2nd Free and Open Source Software Conference*, Muscat, Oman, 18-19 February 2015.
48. Soliman, H.M. and Yousef, H. 2015. Regional Pole Placement by Saturated Power System *Stabilizers*. In: *Proceedings of the XIII International Conference on Control Science and Systems Engineering*, Istanbul, Turkey, 16-17 February 2015.
49. Tarhuni, N., Saleem, A., Mesbah, M. 2015. On-line Denoising of Motor Speed Control *Loop* Using Order Statistics Filtering. In: *Proceedings of the 10th IEEE International Symposium on Mechatronics and its Application*, UAE, 8-10 December 2015.
50. Yousef, H. and Al Kharusi, K.M. 2015. Indirect Adaptive Fuzzy Logic Frequency Control of Multi-Area *Power System*. In: *Proceedings of the 8th IEEE GCC Conference and Exhibition*, Muscat, Sultanate of Oman, 1-4 February 2015.

Book Chapters

1. Al Abri, D., Malik, A., Albadi, M., Charabi, Y. and Hosseinzadeh, N. 2015. Smart Grid. In: Chen, W., Suzuki, T. and Lackner M. (Eds.). *Handbook of Climate Change Mitigation and Adaptation*, Springer, S: pp. 1-30.
2. Elhaffar, A., El-Naily, N. and El-Arroudi, K. 2015. Management of Distribution Protection with High Penetration of DGs. In: Bilge, Ali Nezihi, Toy, Ayhan Özgür, Günay, Mehmet Erdem (Eds.). *Energy Systems and Management*, Springer Proceedings in Energy, 2015, Springer International Publishing, Switzerland, pp. 279-291.
3. Malik, A.S. 2015. Economics for a Sustainable Planet. In: Chen, W., Suzuki, T. and Lackner M. (Eds.). *Handbook of Climate Change Mitigation and Adaptation*, Springer, E: pp. 1-28.

Technical Reports

1. Al-Hinai, A., Pandi, R. and Al-Yammahi, H. 2015. Intelligent Load Frequency Control Scheme for Distributed Generation. Internal Research Grant Technical Report, Masdar Institute, United Arab Emirates.
2. Ali, S., Al-Balushi, T. and Nadir, Z. 2015, Cyber Security for Cyber Physical Systems of Oman. The Research Council of Oman, Sultanate of Oman.
3. Bourdoucen, H., Ould-Khaoua, M. and Al Maashri, A. 2015. Reduction of Road Traffic Accidents Using Alert Messages Dissemination in Vehicular Ad Hoc Networks. The Research Grant Technical Report, Sultanate of Oman.
4. Bourdoucen, H., Ould-Khaoua, M., Al Maashri, A., Sarrab, M. and Amiri-Kordestani, M. 2015. Free and Open Source Software (FOSS) Initiative: A Proposal for Deployment Roadmap. External Consultancy Technical Report, Information Technology Authority, Sultanate of Oman.
5. Khriji, L. 2015. Wireless Biotelemetry for Ubiquitous Healthcare Monitoring. Final Report, Qatar Foundation, Qatar.
6. Mnif, F. 2015. Dynamics and Control of an Inverted Pendulum with Delayed Feedback Control. Internal Research Grant Technical Report, Sultan Qaboos University, Sultanate of Oman



OTHER ACTIVITIES

Seminars

- Al-Badi, A. *The Potential of Renewable Energy in Oman*. Workshop on Continuous Hybrid Cooling using Geothermal and Solar Heat, The Research Council, Muscat, Oman, 9 November, 2015.

Cooperation with Local and Foreign Organizations

- Abdulghani, A. collaborated with Al Musanna College of Technology, Ministry of Manpower, in knowledge and experience sharing related to latest engineering education and information technology.
- Ahmad, A. collaborated with Waljat College of Applied Sciences in program curriculum evaluation for the International Centre in Muscat, Birla Institute of Technology (India).
- Al Maashri, A. 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.
- Jervase, J., collaboratively with several staff members from the College of Engineering at SQU, developed the Engineering programs for the College of Applied Sciences (Sohar) as a consultancy project for the Ministry of Higher Education.
- Metwally, I. and Al-Badi, M. 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 and research projects related to establishing a sustainable and unique projects in the electrical power and energy area, and to purchase the state-of-the-art power system simulator.

- Yousef, H. collaborated in Adaptive Fuzzy Control of MEMS research project with Dr. G. Rigatos, Industrial Systems Institute, Rion Patras, Greece.
- Yousef, H. collaborated in Adaptive Fuzzy Control of MEMS research project with Dr. G. Zhu, Department of Electrical Engineering, Ecole Polytechnique de Montréal, Montréal, Canada.

Short Courses and Workshops

1. Ahmed Al-Maashri co-organized a workshop on Augmented Reality with the Information Technology Authority (ITA), ITA, Muscat, Oman, 5-18 November 2015.
2. Ahmed Al-Maashri presented a workshop on Linux Essential, Sultan Qaboos University, Muscat, Oman, June 2015.
3. Amer Al-Hinai presented a short course on Basics of Electrical Power Engineering, Sultan Qaboos University, Muscat, Oman, 23-25 August 2015.
4. Hadj Bourdoucen, organizing committee chairman of FOSSC-Oman 2015, the Free and Open Source Software Conference, jointly with the Information Technology Authority, Muscat, Oman, 18 – 19 February 2015.
5. Ibrahim Metwally and Mohammed Al-Badi organized a short course on Programmable Logic Controllers and SCADA Systems, Sultan Qaboos University, Muscat, Oman, 25-27 January 2015.
6. Ibrahim Metwally and Mohammed Al-Badi organized a short course on Power Systems Planning, Sultan Qaboos University, Muscat, Oman, 18-21 January 2015.
7. Ibrahim Metwally and Mohammed Al-Badi organized a short course on Power System Protection, Sultan Qaboos University, Muscat, Oman, 11-13 October 2015.
8. Ibrahim Metwally and Mohammed Al-Badi organized a short course on Power System Harmonics, Sultan Qaboos University, Muscat, Oman, 14-15 October 2015.
9. Lazhar Khariji delivered a half-day short course on Basics of Signals and Optics. Part of Military Forces' workshop program, organized by Sultan Qaboos University, Muscat, Oman, 30 November 2015.
10. Mohammed Al-Badi delivered a workshop on Renewable Energy Option for Oman, Sultan Qaboos University, Muscat, Oman, 4-7 October 2015.
11. Mohammed Al-Badi and Rashid Al-Abri delivered a half-day short course on Electrical Engineering Fundamentals and Electronics. Part of Military Forces' workshop program, organized by Sultan Qaboos University, Muscat, Oman, 30 November 2015.

12. Mohammed Bait-Suwailam delivered a half-day short course on Fundamentals of Electromagnetics. Part of Military Forces' workshop program, organized by Sultan Qaboos University, Muscat, Oman, 1 December 2015.
13. Naser Tarhuni delivered a short course on Optical Communications, Caledonian College of Engineering, Muscat, Oman, 2 April 2015.
14. Rashid Al-Abri delivered a short course on Power Electronics for Renewable Energy (Solar and Wind). Organized by Pre-Innovation Incubator (PII), Sultan Qaboos University, Muscat, Oman, October 2015.
15. Rashid Al-Abri and Nasser Hossenzaideh delivered a Training Workshop on Power Quality at Sultan Qaboos University. Dubai, United Arab Emirates, 11 November 2015.

Invited Talks

1. Ahmad, A. 2015. *Academic Programs Curriculum Evaluation Methodologie*. Department of Electronics and Communication Engineering, Waljat College of Applied Sciences, Birla Institute of Technology (India), International Centre, K.O.M., Muscat, 10 December 2015.
2. Al-Abri, R. 2015. *Applications of Power Electronics in Renewable Energy*. Symposium on Applications of power electronics in renewable energy, Glasgow Caledonian College, Muscat, 29 April 2015.
3. Al-Badi, A. 2015. *Renewable Energy Resources in Oman: Current Status and Future Prospects*. Conference on Energy Challenges in Oman, Future vision, Salalah, Oman, 9-10 December 2015.
4. Al-Badi, A. 2015. *Renewable Energy Research Activities in Oman*. Annual Research Forum, The Research Council, Muscat, Oman, 26-27 October 2015.
5. Al-Badi, M. 2015. Renewable Energy in Oman – Status and Opportunities. SQU Open Day, 5 May 2015.
6. Al Maashri, A. 2015. *Embedded Vision Systems: from FOSS to FPGA*. Modern College of Business and Science, Muscat, Oman, 15 November 2015.
7. Jamil, T. 2015. The Brain Imitation Game – Are we winning it? The 9th IEEE International Conference on Open Source systems and Technologies, University of Engineering and Technology, Lahore, Pakistan, 17 December 2015.
8. Jervase, J. 2015. *Engineering Education in the 21st Century: National Perspective*. Institution of Civil Engineers 4th Middle East and Africa Convention, Muscat, Oman, 19-21 October 2015.
9. Jervase, J. 2015. *Alignment of SQU Graduate Attributes, College Program Educational Objectives and Learning Objectives*. College of Economics and Political Science, Sultan Qaboos University, Muscat, Oman, 17 December 2015.

10. Jervase, J. 2015. *Developing Course Learning Objectives (CLOs)*. Department of Petroleum and Chemical Engineering, College of Engineering, Sultan Qaboos University, Muscat, Oman, 3 November 2015.
11. Khariji, L. 2015. *Co-Design Implementation of Real-Time Acquisition and Processing of Bio-Signals*. Qatar University, Electrical Engineering Department, 13 March 2015.
12. Masoud, M. 2015. *Five-Phase Rectifiers Suitable for Wind Energy Applications*. Symposium on Applications of power electronics in renewable energy, Glasgow Caledonian College, Muscat, 29 April 2015.
13. Saleem, A. 2015. *Educational Robotics*. Ministry of Education - Curriculum Development Department, 8 February 2015.

Awards

- Dr. Mohammed Bait-Suwallam received the Distinguished Teaching Excellence Award from College of Engineering in the University Open Day, 2015.
- Student: L. Huchel, Supervisor: Dr. Amer Al Hinai - Best Paper Award at UAE Graduate Students Research Conference, Abu Dhabi, UAE, 2015. Title of the paper: "Influence of Generation Scheduling on Power System Protection and Stability".
- Students: Ahsen Ali, Ibrahim Bendari and Bassam Tarek, Supervisor: Dr. Amir M. Abdulghani - Best Project Award at the 8th IEEE GCC Conference and Exhibition, 3 February 2015, Muscat, Oman. Title of the project: "Brain Computer Interface (BCI+)".
- Students: Hiba Al Farsi, Abeer Al Aghbari, Sami Al Abri, and Manea Al Shukaili, Supervisors: Dr. Ahmed Al Maashari and Dr. Medhat Hussein – First Place Award, at the GCC Council Prizes for Engineering, Architectural and Planning, and Computer Students (First Place Award in Computer Engineering category). Title of the project: "Design and Implementation of Unmanned Ground Vehicle (UGV) Controller".
- Students: Mazoon Al Maamari and Salma Al Badi, Supervisors: Dr. Ashraf Saleem, Dr. Mustafa Mesbah, and Dr. Edris Hassan- Second place award, at the GCC Council Prizes for Engineering, Architectural and Planning, and Computer Students (First Place Award in general Engineering category). Title of the project: "Brain-controlled Hand Exoskeleton for Locked-in Syndrome Patients".
- Students: Tariq Al-Ma'amari, Asa'ad Al-Qasimi, Ahmed Al-Belushi, Hamad Al-Busaidi, Abdullah Al-Kindi, Muath Al-Madhani, Supervisor: Dr. Ashraf Saleem-Second Place Award, at the Robotics Competition, the GCC Robotics Challenge, Kuwait, 12 December, 2015.
- Students: Tariq Al-Ma'amari, Asa'ad Al-Qasimi, Ahmed Al-Belushi, Hamad Al-Busaidi, Abdullah Al-Kindi, Muath Al-Madhani, Supervisor: Dr. Ashraf Saleem-First Place Award, at the National Robotics Competition, Muscat, Oman, 30 November, 2015.

Students' Activities

- PSPICE Essentials for ECE students (Sultan Qaboos University, 21 September 2015).
- MATLAB Workshop for ECE students (Sultan Qaboos University, 6 October 2015).
- Workshop on Design and Programming of VEX Robotics (Sultan Qaboos University, 6-7 October 2015).





Mechanical and Industrial Engineering



Mechanical & 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.

Table D1: Summary

	2014	2015
Faculty	27	31
Support staff	29	25
Total	56	56
On-study leave	2	2
Undergraduate Program		
Enrolment	365	338
Courses offered	118	110
Graduates	114	99
Graduate Program		
Enrolment	9	12
Courses offered	8	9
Graduates	7	2
Research		
Grants (new approved)	16	10
Publications		
Refereed journals	42	59
Conference proceedings	23	45

In 2015, Mechatronics program had 109 students enrolled for undergraduate studies and 20 Mechatronics students graduated.

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. The Department 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 the fundamental research. Faculty members continue to participate in the activities of local engineering organizations and industries.

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 Department also encourages its students to involve 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 with their projects, with their design and/or implementations. Recently, the submarine Sultana II designed by the SQU students' team won the fourth place in the 12th Human-Powered International Submarine Race (ISR) in the United States. We constantly strive to provide avenues for excelling in research to our faculty/staff/students to serve the society. 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.



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 & Supply Chain Management, Resources Optimization



Dr. Amur S. Al Yahmadi

Associate Professor

Research Interests: Modeling and Simulation, Multibody Dynamics, and Robotics & 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 etc



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 Özer

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 & 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, Smart Materials and Vibration, Biomedical Instrumentation, Industrial Automation



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, Fracture Mechanics, Material Characterization, Material Modeling



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, and Mechatronics



Mohamed Al-Lawati

Lecturer

Research Interest: Mechatronics Engineering



Farooq Aljahwari

Lecturer (On study leave)

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



Dr. Sulaiman Al-Obaidani

Research Associate

Al-Hail Desalination Lab



Hilal Al-Ismaily

Research Associate

Drawing/Auto CAD Lab



Faisal Al-Khatri

Department Superintendent, Lab Supervisor

Thermodynamics Lab, A/C and Refrigeration Lab



Mohammad Al-Hadhrami

Chief Engineer, Acting Workshop Superintendent

Solid Mechanics , Ergonomics, Manufacturing, Workshops 1 and 2



Saeed Al-Mughairy
Senior Engineer

Materials Lab, Al-Hail Desalination Lab



Mohammad Ali Al-Hadhrami
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 G

Workshop



Issa Al-Saifi

Storekeeper

Department's store



Basma Al-Farsi

Coordinator

Nasra Al- Maskari

Lecturer (Pursuing Doctoral Program)

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

<p>Department Board</p>	<p>Dr. Nabeel Al-Rawahi (Chair) Dr. Khurshid Alam (Secretary) Dr. Mahmoud Al-Kindi (IE program coordinator) All academic staff Eng. Mohamed Al-Hadhrami Mr. Faisal Al-Khatri</p>
<p>Department Accreditation Committee (DAC)</p>	<p>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 Dr. Mohammed Khadem Dr. Mahmoud Al-Kindi (IE Program Coordinator) Dr. Majid Al-Moharbi Dr. Riadh Zaier</p>

Department Curriculum and Timetabling Committee	<p>Dr. Issam Bahdoor (ME Coordinator, Chair)</p> <p>Dr. Ibrahim Garbie (IE Coordinator)</p> <p>Dr. Amur Al-Yahmadi (Dynamics and Control FGC)</p> <p>Dr. Abdullah Al-Shabibi (Applied Mechanics FGC)</p> <p>Dr. Nasser Al-Azri (Thermofluids FGC)</p> <p>Dr. Majid Al-Maharbi (Materials and Manufacturing FGC)</p> <p>Dr. Mohammed Khadem (Industrial Engineering FGC)</p>
Final Year Project (FYP) Coordinators	<p>Dr. Edris Hassan (ME FYP I Coordinator)</p> <p>Dr. Afzal Husain (ME FYP II Coordinator, Chair)</p> <p>Dr. Ahm Shamsuzuha (IE FYP Coordinator)</p>
Department Postgraduate Studies and Research (DPGSR) Committee	<p>Dr. Khalid Al-Zebdeh (IE PGR Coordinator , Chair)</p> <p>Dr. Abdullah Al-Shabibi (ME PGR Coordinator)</p> <p>Dr. Mojtaba Ghodsi</p> <p>Dr. Nabeel Al-Rawahi</p>
Department Publications/web Committee	<p>Prof. Sabah Al-Sulaiman (Chair)</p> <p>Dr. Abdullah Özer (ME Coordinator)</p> <p>Dr. Ibrahim Garbie (IE Coordinator)</p> <p>Mr. Mohammed Al-Lawati</p>
Department Recruitment Committee	<p>Dr. Nasser Al-Azri (Chair)</p> <p>Dr. Nabeel Al-Rawahi</p> <p>Dr. Zahid Qamar</p> <p>Dr. Abdullah Al-Shabibi</p> <p>Dr. Nasr Al-Hinai</p> <p>Dr. Mahmoud Al-Kindi</p> <p>Dr. Issam Bahdour</p>
Department Lab/HSE Committee	<p>Dr. Abdullah Al-Shabibi (Chair)</p> <p>Dr. Ibrahim Garbie</p> <p>Dr. Khurshid Alam</p> <p>Dr. Abdullah Al-Janabi</p> <p>Dr. Ahm Shamsuzzoha</p> <p>Eng. Mohamed Al-Hadhrami</p> <p>Mr. Faisal Al-Khatri</p>

Industrial Advisory Board (IAB)	Dr. Nabeel Al-Rawahi (Chair) Prof. Jamil Abdo (Coordinator) Prof. Tasneem Pervez Dr. Zahid Qamar Dr. Mahmoud Al-Kindi Dr. Chefi Triki Dr. Khaled Alzebdeh
Student Societies Advisors	Dr. Chefi Triki (IES Advisor) Dr. Edris Hassan (SME Advisor)
Student-Staff Liaison Committees (ME & IE)	Dr. Nabeel Al-Rawahi (Chair) Dr. Issam Bahdoor (ME Coordinator) Dr. Ibrahim Garbie (IE Coordinator) Two Students from each cohort
Social Activities Committee	Dr. Nasr Al-Hinai (Chair) Dr. Abdullah Al-Janabi
Department Strategic Planning Committee	Prof. Jamil Abdo (Chair) Dr. Zahid Qamar (Coordinator) Dr. Nabeel Al-Rawahi Prof. Tasneem Pervez Dr. Nasser Al-Azri Dr. Mohammed Khadem Dr. Mahmoud Al-Kindi
Industrial Training & Alumni Committee	Dr. Majid Al-Moharbi (Chair) Dr. Mohammed Khadem Dr. Khurshid Alam
Textbook & Library Committee	Dr. Sujan Piya (IE Coordinator, Chair) Dr. Afzal Husain (ME Coordinator)
Seminar Committee	Dr. Mojtaba Ghodsi (Chair) Dr. Ramanathan Arun Dr. Sujan Piya

Academic Advising Committee	<p>Dr. Amur Al-Yahmadi (Chair) Dr. Khaled Alzebedeh Dr. Abdullah Al-Shabibi Dr. Chefi Triki</p>
Continuous Assessment and Evaluation Committee –Mechanical Eng. Program (CAEC-ME)	<p>Dr. Amur Al-Yahmadi (Chair) Dr. Nabeel Al-Rawahi Prof. Jamil Abdo Dr. Zahid Qamar Dr. Nasser Al-Azri Dr. Ramanathan Arun</p>
Continuous Assessment and Evaluation Committee –Industrial Eng. Program (CAEC-IE)	<p>Dr. Nasr Al-Hinai (Chair) Dr. Mahmoud Al-Kindi Dr. Mohammed Khadem Dr. Khalid Alzebedeh Dr. Sujan Piya</p>
Peer Review of Teaching Managing Committee	<p>Dr. Ramanathan Arun (Chair) Dr. Khalid Alzebedeh Dr. Afzal Hussain</p>
Students Disciplinary Committee	<p>Dr. Chefi Triki (Chair) Dr. Khurshid Alam</p>
Department Outreach Committee	<p>Dr. Nasser Al-Azri (Chair) Dr. Majid Al-Maharbi</p>

UNDERGRADUATE STUDIES



Table D3: Courses Offered in Spring 2015

Code	Title	Instructor(s)
MEIE2102	Statics	Dr. Khurshid Alam Alam
PNGE2102	Basic Mechanics	Dr. Abdullah Özer
MEIE2129	Basic Mechanics	Dr. Abdullah Özer
MEIE2181	WorkShop II	Mr. Mohammad Al-Hadrami
MEIE2289	Fundamentals of Innovation&Entrepreneurship	Dr. Mahmood Al-Kindi
MEIE3102	Solid Mechanics	Dr. Abdullah Al-Shabibi
MEIE3107	Engineering Drawing and Graphics	Mr. Hilal Al-Ismaili
MEIE3109	Product design	Dr. Arunachalam Ramanathan
MEIE3121	Dynamics	Dr. Martha Bin Zaidan Dr. Riyadh Zaier
MEIE3122	Machine Dynamics	Dr. Mojtaba Ghodsi Ghodsi
MEIE3142	Thermodynamics II	Dr. Mahmood Tahat Dr. Nasser Al-Azri
MEIE3159	Thermofluids	Dr. Abdullah Al Janabi
MEIE3161	Materials Science	Dr. Majid Al-Maharbi
MEIE3181	Electromechanical Systems	Dr. Issam Bait Bahadur
MEIE3198	Mechanical Engineering Seminar I	Mr. Mohammed Al Lawati
MEIE3261	Product Design and Development	Dr. Nasr Al-Hinai
MEIE3281	Probability & Statistics for Engineers	Dr. Mahmood Al-Kindi
MEIE3290	Operation Research Optimization	Dr. Chefi Triki

Code	Title	Instructor(s)
MEIE3292	Work System Analysis and Design	Dr. Ibrahim Garbie
MEIE4102	Machine Design I	Dr. Jamil Abdo
MEIE4122	Engineering System and Control	Dr. Martha Bin Zaidan
MEIE4141	Fluid Mechanics	Dr. Nabeel Al-Rawahi
MCTE4150	Modeling and Simulation	Dr. Amur Al-Yahmedi
MEIE4161	Engineering Materials	Dr. Majid Al-Maharbi
MEIE4182	Applied Mathematics for Engineers	Dr. Sayyad Qamar
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
MEIE4221	Quality Control	Dr. Sujan Piya
MEIE4224	Quality Engineering and Six Sigma	Dr. Sujan Piya
MEIE4262	Manufacturing Processes	Dr. Sayyad Qamar Dr. Edris Hassan
MEIE4267	Industrial Automation	Dr. Issam Bait Bahadur
MEIE4272	Simulation Models	Dr. Ahm Shamsuzuha
MEIE4275	Facilities Design and Logistics	Dr. Ibrahim Garbie
MEIE4283	Engineering Ethics	Dr. Khalid Alzebdeh
MEIE4285	Engineering Economics	Dr. Khalid Alzebdeh
MEIE4286	Management for Engineers	Dr. Nasr Al-Hinai
MCTE4298	Mechatronics Engineering Seminar I	Mr. Mohammed Al Lawati
MEIE5121	Modelling & Simulation of Engineering Systems	Dr. Amur Al-Yahmedi
MCTE5142	Robotics	Dr. Riyadh Zaier
MEIE5149	Capstone Design	Prof. Jamil Abdo
MEIE5188	Business and Entrepreneurship	Dr. Sujan Piya
MEIE5190	Special Topics	Dr. Abdullah Al janabi
MEIE5193	Project I	Dr. Edris Hassan
MEIE5194	Project II	Dr. Afzal Husain
MEIE5224	Six Sigma Methodology	Dr. Mahmood Al-Kindi
MEIE5264	CAD/CAM	Dr. Edris Hassan
MEIE5265	Computer Integrated Manufacturing	Dr. Ahm Shamsuzuha
MEIE5286	Supply Chain Management	Dr. Chefi Triki
MEIE5291	IE Project I	Dr. Chefi Triki
MEIE5292	IE Project II	Dr. Chefi Triki
MEIE5295	Seminar	Mr. Mohammed Al Lawati

Table D4: Courses Offered in Fall 2015

Code	Title	Instructor(s)
MEIE2102	Statics	Dr. Abdullah Mohamed Al-Shabibi
MEIE2129	Basic Mechanics	Dr. Amur Al-Yahmedi Dr. Abdullah Özer
MEIE2181	WorkShop II	Mr. Mohammad Abdullah Al-Hadrami
MEIE3102	Solid Mechanics	Dr. Khurshid Alam
MEIE3107	Drawing and Computer Graphics	Mr. Hilal Ali Al-Ismaili Dr. Khurshid Alam Dr. Arunachalam Ramanathan
MEIE3109	Product Design	Dr. Arunachalam Ramanathan
MEIE3121	Dynamics	Dr. Amur Al-Yahmedi
MEIE3122	Machine Dynamics	Dr. Musaab Zaroug
MEIE3141	Thermodynamics I	Dr. Abdullah Al Janabi Dr. Nasser Ahmed Al-Azri
MEIE3161	Materials Science	Dr. Majid Hamood Al-Maharbi Dr. Abdullah Mohamed Al-Shabibi
MEIE3181	Electromechanical Systems	Dr. Issam Mahfoodh Bait Bahadur
MEIE3269	Mathematics of Linear Programming	Dr. Chefi Triki
MEIE3281	Probability and Statistics for Engineers	Dr. Sujan Piya
MEIE3282	Industrial Information System Design	Dr. Mohammad Miftaur Khadem
MEIE4101	Computer Aided Machine Design	Dr. Edris Masoud Hassan
MEIE4102	Machine Design I	Prof. Jamil Ahmad Abdo
MEIE4125	Instrumentation and Measurement	Dr. Mojtaba Ghodsi
MEIE4141	Fluid Mechanics	Dr. Nabeel Zahran Al-Rawahi Dr. Afzal Husain
MEIE4161	Engennering Materials	Dr. Majid Hamood Al-Maharbi
MEIE4183	Numerical Methods for Engineers	Prof. Sabah Ahmed Al-Sulaiman
MEIE4191	ME Seminar	Mr. Mohamed Al Lawati
MEIE4201	Ergonomics and Safety	Dr. Mohammad Miftaur Khadem
MEIE4218	Advanced Probability and Statistics	Dr. Sujan Piya
MEIE4222	Production Planning	Dr. Nasr Hamood Al-Hinai
MCTE4230	Thermal Sciences	Prof. Sabah Ahmed Al-Sulaiman
MCTE4255	Mechatronics System	Dr. Riadh Zaier
MEIE4262	Manufacturing Processes	Dr. Edris Masoud Hassan Dr. Sayyad Zahid Qamar
MEIE4285	Engineering Economic	Dr. Khalid Ibrahim Alzebdeh

Code	Title	Instructor(s)
MEIE4298	Seminar I	Mr. Mohammed Al Lawati
MEIE5019	Internal Combustion	Dr. Abdullah Al Janabi
MEIE5101	Engineering Vibration	Dr. Abdullah Özer
MEIE5110	Applied Finite Element	Dr. Tasneem Pervez
MEIE5130	Mechatronics Systems	Dr. Riyadh Zaier
MEIE5145	Design of Thermal Systems	Dr. Afzal Husain
MEIE5165	Introduction to Fracture Mechanics	Dr. Sayyad Zahid Qamar
MEIE5193	Project I	Dr. Edris Masoud Hassan
MEIE5194	Project II	Dr. Afzal Husain
MEIE5198	Seminar II	Mr. Mohammed Al Lawati
MEIE5201	Occupational Safety	Dr. Ahm Shamsuzzoha
MEIE5202	Industrial Safety	Dr. Ahm Shamsuzzoha
MEIE5233	Maintenance Engineering	Dr. Ibrahim Garbie
MEIE5261	Industrial Engineering Design	Dr. Ibrahim Garbie
MEIE5267	Automation and CIM	Dr. Ahm Shamsuzzoha
MEIE5287	Project Management	Dr. Nasr Hamood Al-Hinai
MEIE5288	Innovation and Entrepreneurship	Dr. Mahmood Abdullah Al-Kindi
MEIE5291	Project I	Dr. Ahm Shamsuzzoha
MEIE5292	Project II	Dr. Chefi Triki
MEIE5295	Seminar	Mr. Mohamed Al Lawati



POSTGRADUATE STUDIES

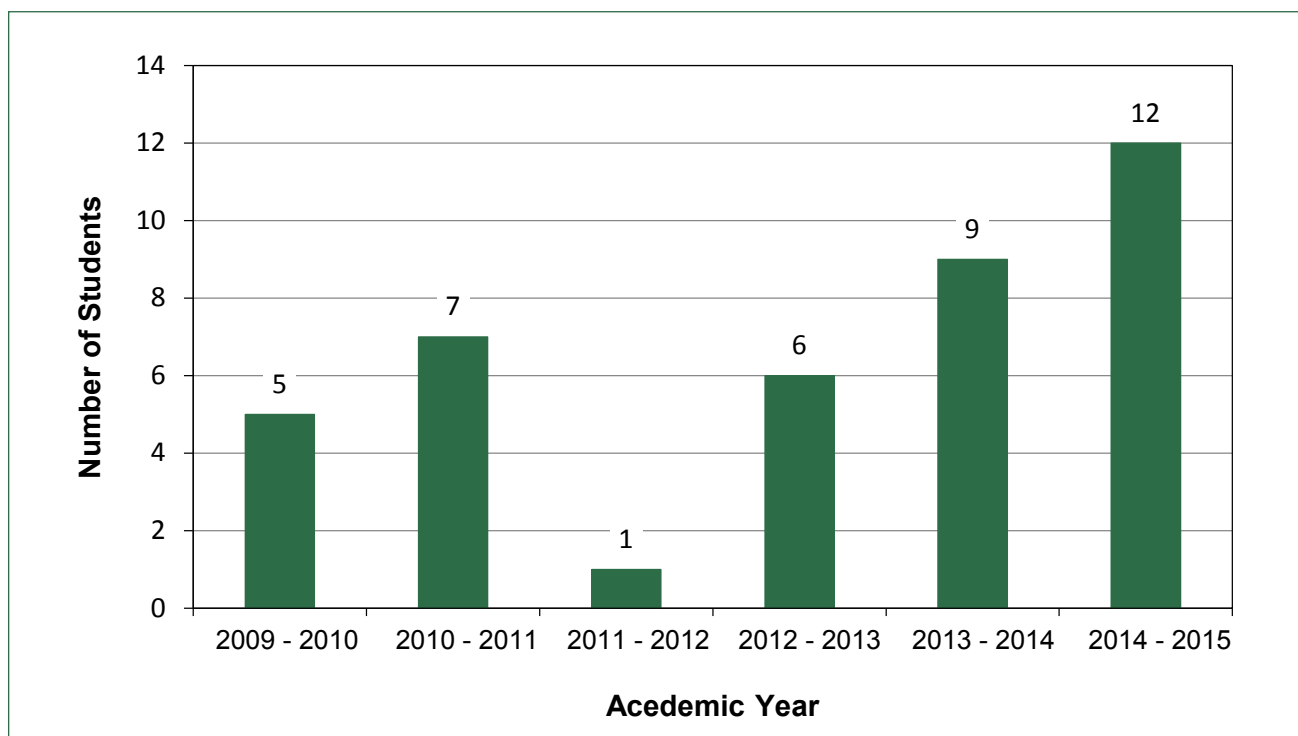


Figure D1: Graduate Students' Enrolment for the Past Six Years

Courses

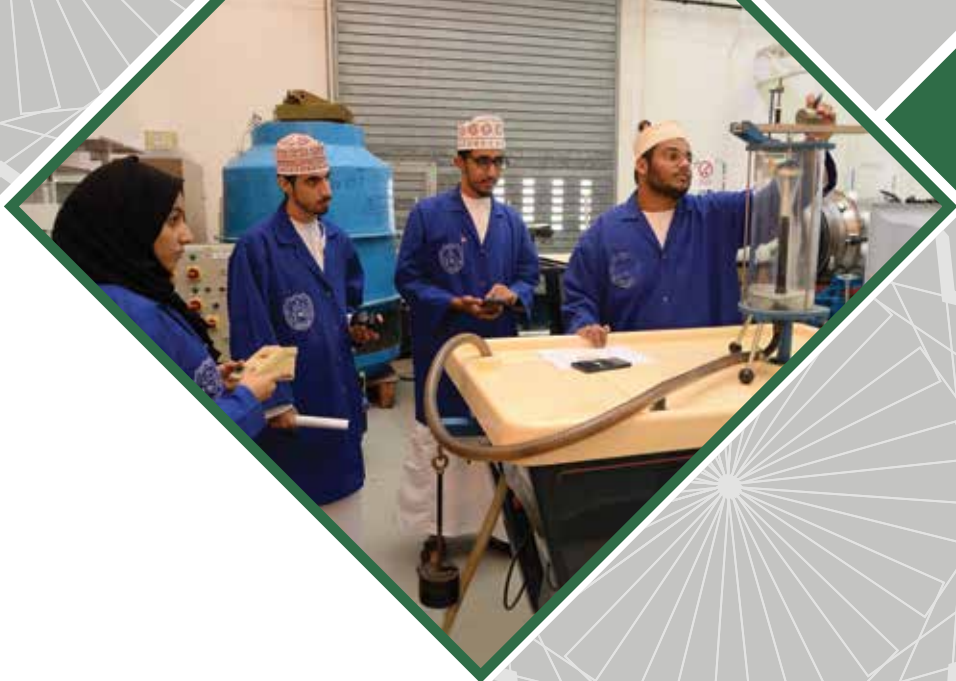
Table D5: Postgraduate Courses Offered in Year 2015

Semester	Code	Title	Instructor(s)
Spring 2015	MEIE6108	Advanced Vibrations	Dr. Abdullah Özer
	MEIE6212	Directed Studies	Dr. Abdullah Al-Shabibi
	MEIE7001	Master Thesis	Dr. Abdullah Al-Shabibi
	MEIE8001	PhD Thesis	Dr. Abdullah Al-Shabibi
Fall 2015	MEIE6002	Quality Reliability	Dr. Ibrahim Garbie
	MEIE6004	Advanced Numerical Methods	Dr. Nasser Ahmed Al-Azri
	MEIE6020	Computational Fluid Dynamics	Dr. Afzal Husain
	MEIE7001	Thesis	Dr. Abdullah Mohamed Al-Shabibi
	MEIE8001	PhD Thesis	Dr. Abdullah Mohamed Al-Shabibi

Postgraduate Students' Projects

Table D6: Graduate Students' Projects

No	Student Name	Project Title
1	Sulaiman Omer Sulaiman Fadlallah	Design, Modelling, and Control of a Portable Leg Rehabilitation System
2	Mujtaba Allawati	Design and Implementation of a Budget Estimation Model for Oil and Gas Industry



RESEARCH

Grants and Contracts

Table D7: New Grants, Contracts and Consultancies by Faculty Members in Year 2015

Research Title	Principal Investigator(s)	Budget (OMR)	Funded By
Development of Fishing Trap Degradable Device Prevention / Reduction of Ghost Fishing in Oman	Prof. Jamil Abdo	22,000	Industrial Innovation Center
Numerical Analysis Visualization and Experimental Measurement of Capillary-Driven Blood Flow Micro-Channel Mixing	Dr. Afzal Husain	20,000	UAE University
Optimization Based Prediction Gait a Feasibility Study	Dr. Amur Al-Yahmadi	117,400	TRC
Electronic Spot Markets Based on Combinatorial Auctions for the Transportation E- Procurement in Oman	Dr. Chefi Triki	46,000	TRC

Research Title	Principal Investigator(s)	Budget (OMR)	Funded By
Analytical and Numerical Micromechanical Modeling of Piezo-Electrico-Magnetic-Thermo-Elastic Smart Composite Structures – Part I Theory, Part II: Application	Dr. Edris Hassan	5,500	SQU
Mechanical Properties of Omani Wood Used for Crafting Khanjar Handles	Dr. Majid Al-Maharbi	10,000	Public Authority for Craft Industries
Sucker Rod Failures Investigation	Dr. Majid Al-Maharbi	13,943	PDO
Solid-State Recycling of Magnesium Alloys Through Consolidation of Magnesium Chips Using Equal Channel Angular Extrusion	Dr. Majid Al-Maharbi	4,700	SQU
Design And Fabrication of Self-Sensing Magnetostrictive Transducer For Non-Destructive Evaluation	Dr. Mojtaba Ghodsi	8,500	SQU
Investigation of Swelling Elastomers for Yibal Field	Dr. Zahid Qamar	7,690	PDO

Publications

Refereed Journal Papers

1. Abdo, J. 2015. Material Sliding Wear Model Depending on Energy Dissipation. *Mechanics of Advanced Materials and Structures*, 22:1-7.
2. Abdo, J. and Sharji, H. 2015. Investigation of Vibration Effects on Friction and Axial Force Transfer of Buckled Rod Constrained in a Horizontal Cylinder. *Tribology International*, 92:317-327.
3. Abdo, J., Al-Shabibi, A. and Sharji, H. 2015. Effects of Tribological Properties of Water-Based Drilling Fluids on Buckling and Lock-up Length of Coiled Tubing in Drilling Operations. *Tribology International*, 82:493-501.
4. Abdul-Wahab, S., Elkamel, A., Ahmadi, L. and Chan, K. 2015. Study of SO₂ Dispersion from a Proposed Refinery in Newfoundland and Labrador, Canada. *Sustainable Environment Research*, 25(6):283-294.
5. Abdul-Wahab, S., Salem, N. and Ali, S. 2015. Investigation of the Environmental Indicators at the Main Library of Sultan Qaboos University (SQU) in the Sultanate of Oman. *Sustainable Environment Research*, 25(3):131-139.

6. Abdul-Wahab, S.A., Ahmadi, L., Elkamel, A., Chan, K., Yazdanpanah, P. and Yetilmezsoy, K. 2015. Study of the Dispersion of PM₁₀ in Canada. *Fresenius Environmental Bulletin*, 24(10a):3320-3328.
7. Abdul-Wahab, S.A., Charabi, Y., Al-Maamari, R., Al-Rawas, G.A., Gastli, A. and Chan, K. 2015. CO₂ Greenhouse Emissions in Oman over the Last Forty-Two Years: Review. *Renewable and Sustainable Energy Reviews*, 52:1702-1712.
8. Abdul-Wahab, S.A., Charabi, Y., Al-Rawas, G.A., Al-Maamari, R., Gastli, A. and Chan, K. 2015. Greenhouse Gas (GHG) Emissions in the Sultanate of Oman. *Greenhouse Gases: Science and Technology*, 5(3): 339-346.
9. Abdul-Wahab, S.A., En, S.C.F., Elkamel, A., Ahmadi, L. and Yetilmezsoy, K. 2015. A Review of Standards and Guidelines Set by International Bodies for the Parameters of Indoor Air Quality. *Atmospheric Pollution Research*, 6(5):751-767.
10. Abdul-Wahab, S.A., Fgaier, H., Elkamel, A. and Chan, K. 2015. Air Quality Assessment for the Proposed Miller Braeside Quarry Expansion in Canada: TSP. *Air Quality, Atmosphere and Health*, 8(6):573-589.
11. Abdul-Wahab, S.A., Salem, N. and Ali, S. 2015. Evaluation of Indoor Air Quality in a Museum (Bait Al Zubair) and Residential Homes. *Indoor and Built Environment*, 24(2):244-255.
12. Ahmadi, L., Croiset, E., Elkamel, A., Douglas, P.L., Entchev, E., Abdul-Wahab, S.A. and Yazdanpanah, P. 2015. Effect of Socio-Economic Factors on EV/HEV/PHEV Adoption Rate in Ontario. *Technological Forecasting and Social Change*, 98:93-104.
13. Ahmadi, L., Elkamel, A., Abdul-Wahab, S.A., Pan, M., Croiset, E., Douglas, P.L. and Entchev, E. 2015. Multi-Period Optimization Model for Electricity Generation Planning Considering Plug-in Hybrid Electric Vehicle Penetration. *Energies*, 8(5):3978-4002.
14. Al-Abri, O.S., Pervez, T., Al-Hiddabi, S.A. and Qamar, S.Z. 2015. Analytical Model for Stick-slip Phenomenon in Solid Tubular Expansion. *Journal of Petroleum Science and Engineering*, 125:218-233.
15. Al-Abri, O.S., Pervez, T., Qamar, S.Z. and Al-Busaidi, A.M. 2015. Optimum Mandrel Configuration for Efficient Down-Hole Tube Expansion. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, 137(6):061005.
16. Al-Adwani, S., Elkamel, A., Duever, T.A., Yetilmezsoy, K. and Abdul-Wahab, S.A. 2015. A Surrogate-Based Optimization Methodology for the Optimal Design of an Air Quality Monitoring Network. *Canadian Journal of Chemical Engineering*, 93(7):1176-1187.
17. Alam, K. 2015. Directional Dependent Analysis of Force and Torque in Conventional and Ultrasonically-Assisted Drilling of Cortical Bone. *ScientiaIranica Transactions B: Mechanical Engineering*, 22:258-263.

18. Alam, K. 2015. Experimental Measurements of Temperatures in Drilling Cortical Bone using Thermocouples. *ScientiaIranica Transactions B: Mechanical Engineering*, 22:487-492.
19. Alam, K., Bahdour, I. and Ahmed, N. 2015. Cortical Bone Drilling: An Experimental and Numerical Study. *Technology and Health Care*, 23:223-231.
20. Alam, K., Hassan, E. and Bahdour, I. 2015. Experimental Measurements of Temperatures in Ultrasonically Assisted Drilling of Cortical Bone. *Biotechnology and Biotechnological Equipment*, 29:753-757.
21. Alam, K., Khan, M. and Silberschmidt, V.V. 2015. 3D Finite Element Modeling of Drilling Cortical Bone: Temperature Analysis. *Journal of Medical and Biological Engineering*, 34:618-623.
22. Alam, K., Khan, M., Muhammad, R., Qamar, S.Z. and Silberschmidt, V.V. 2015. In-vitro Experimental Analysis and Numerical Study of Temperature in Bone Drilling. *Technology and Health care*, 23:775-783.
23. Alam, K., Riaz, M. and Silberschmidt, V.V. 2015. In-Vitro Experimental and Numerical Analysis of Forces in Plane Cutting of Cortical Bone. *Applied Mechanics and Materials*, 799:509-514.
24. Al-Azri, N., Al-Kindi, M. 2015. Computational Approach to Large Scale Process Optimization through Pinch Analysis. *Technology Education Management Journal*, 4(3):229-235.
25. Al-Baali, M. and Triki, C. 2015. A Note on Using Partitioning Techniques to Solve Nonlinear Optimization Problems on Parallel Systems. *SQU Journal for Science*, 20(2):12-18
26. Al-Hiddabi, S.A., Pervez, T., Qamar, S.Z., Al-Jahwari, F.K., Marketz, F., Al-Houqani, S. and Van de Velden, M. 2015. Analytical Model of Elastomer Seal Performance in Oil Wells. *Applied Mathematical Modelling*, 39(10):2836-2848.
27. Al-Janabi, A. and Malayeri, M.R. 2015. A Criterion for the Characterization of Modified Surfaces During Crystallization Fouling Based on Electron Donor Component of Surface Energy. *Chemical Engineering and Research Technology*, 100:212-227.
28. Al-Janabi, A. and Malayeri, M.R. 2015. Environmentally Friendly Solvent- and Water-Based Coatings for Mitigation of Crystallization Fouling. *Chemical Engineering & Technology*, 38:147-154.
29. Al-Janabi, A. and Malayeri, M.R. 2015. Nano-Coated Surfaces to Mitigate Fouling in Thermal Water Services. *Desalination and Water Treatment*, 55:2909-2917.
30. Alzebdeh, K., Bashir, H.A. and Al-Siyabi, S. 2015. The Application of Interpretive Structural Modelling to the Problem of Project Cost Overrun. *Journal of Engineering Research*, 12(1):53-68.
31. Ariz, M., Huda, N. and Husain, A. 2015. Thermal Performance Analysis of Jet Impingement with Effusion Scheme. *Procedia Engineering*, 127:110-117.

32. Arunachalam, R., Gnanamuthu, R.M., Al Ahmad, M., Mohan, S., Pavul Raj, R., Maharaja, J., Al Taradeh, N. and Al-Hinai, A. 2015. Development of Nano-Spherical RuO₂ Active Material on AISI 317 Steel Substrate via Pulse Electrodeposition for Supercapacitors. *Surface & Coatings Technology*, 276:336-340.
33. Fessehaye, M., Abdul-Wahab, S.A., Savage, M.J., Kohler, T. and Tesfay, S. 2015. Assessment of Potential for Scaling up a Fog Collection System in the Mountainous Eastern Escarpment of Eritrea. *Mountain Research and Development*, 35(4):1-10.
34. Garbie, I.H. 2015. Integrating Sustainability Assessments in the Manufacturing Enterprises. *International Journal of Industrial and Systems Engineering*, 20(3):343-368.
35. Garbie, I.H. 2015. Sustainability Awareness in Industrial Organizations. *Procedia CIRP*, 26:64-69.
36. Garbie, I.H. 2015. Sustainability Optimization in Manufacturing Enterprises. *Procedia CIRP*, 26:504-509.
37. Garbie, I.H. 2015. Fundamental Requirements for Sustainability Practices and Implementation: An Analytical Modeling and Empirical Investigation. *International Journal of Sustainable Manufacturing*, 3(4):333-362.
38. Ghodsi, M. 2015. Optimization of Mover Acceleration in DC Tubular Linear Direct-Drive Machine using Response Surface Method. *International Review of Electrical Engineering*, 10(4):492-500.
39. Ghodsi, M., Mohammadi, S.M., Hojjat, Y., Talebian, S., Sheikhi, M.M., Ozer, A. and Al-Yahmadi, A. 2015. Analytical, Numerical and Experimental Investigation of a Giant Magnetostrictive (GM) Force Sensor. *Sensor Review*, 35(4):357-365.
40. Gnanamuthu, R.M., Mohan, S., Al Ahmad, M., Arunachalam, R., Maharaja, J. and Bhagat, R. 2015. Electrochemical Influence of Nano-Spherical RuO₂.xH₂O Thin Film on Nickel Adhesion Layer as an Anode via Short-Time Pulse Current Technique for Energy Storage in Rechargeable Batteries. *Journal of the Electrochemical Society*, 162(9):A1793-A1797.
41. Hoshyarmanesh, H., Nehzat, N., Salehi, M. and Ghodsi, M. 2015. X-Ray Diffraction Measurement of Residual Stress-Strain in Sol-Gel Grown Lead ZirconateTitanate Thick Films Deposited on Nickel-Based Supper Alloy Substrate. *Journal of Mechanical science and Technology*, 29(2):715-721.
42. Hoshyarmanesh, H., Nehzat, N., Salehi, M., Ghodsi, M., Lee, H. and Park, H. 2015. Thickness and Thermal Processing Contribution on Piezoelectric Characteristics of Pb(Zr-Ti)O₃ Thick Films Deposited on Curved IN738 using Sol-Gel Technique. *Journal of Materials: Design and Applications*, DOI 10.1177/1464420714568787.
43. Jesudas, T., Ramesh, S., Senthilkumar, K. and Arunachalam, R.M. 2015. Study and Optimization of Overcut on Most Influencing Process Parameters of Micro EDM. *International Journal of Applied Engineering Research*, 10(50):13678-13683.

44. Luo, L., Xie, L., Kruger, U., Alzebdeh, K. and Su, H. 2015. A Novel Bayesian Robust Model and its Application for Fault Detection and Automatic Supervision of Nonlinear Process. *Industrial and Engineering Chemistry Research*, 54(18):5048-5061.
45. Meriem-Benziane, M., Abdul-Wahab, S.A., Zahloul, H., Babaziane, B., Hadj-Meliani, M. and Pluvinage, G. 2015. Finite Element analysis of the Integrity of an API X65 Pipeline with a Longitudinal Crack Repaired with Single-and Double-Bonded Composites. *Composites Part B: Engineering*, 77:431-439.
46. Özer, A., Ghodsi, M., Sekiguchi, A., Saleem, A. and Al-Sabari, M.N. 2015. Design and Experimental Implementation of a Beam-Type Twin Dynamic Vibration Absorber for a Cantilevered Flexible Structure Carrying an Unbalanced Rotor: Numerical and Experimental Observations. *Shock and Vibration*, 2015: ID 154892.
47. Pervez, T., Al-Abri, O.S., Al-Hiddabi, S.A. and Qamar, S.Z. 2015. Analytical Model for Stick-Slip Phenomenon in Solid Tubular Expansion. *Journal of Petroleum Science and Engineering*, 125:218-233.
48. Piya, S. 2015. Dealing with Customers Enquiries Simultaneously under Contingent Situation. *International Journal of Industrial Engineering Computations*, 6(3):391-404.
49. Piya, S., Katsuhiko, T. and Katsumi, M. 2015. Simultaneous Quotations with Capacity Planning under Contingent Orders. *International Journal of Operations and Quantitative Management*, 21(2):99-125.
50. Qamar, S.Z. 2015. Fracture Life Prediction and Sensitivity Analysis for Hollow Extrusion Dies. *Fatigue and Fracture of Engineering Materials and Structures*, 38(4):434-444.
51. Qamar, S.Z. 2015. Heat Treatment and Mechanical Testing of AISI H11 Steel. *Key Engineering Materials*, 656:434-439.
52. Qamar, S.Z., Akhtar, M. and Pervez, T. 2015. Swelling Behavior of Soft and Biological Materials. *Key Engineering Materials*, 656:580-585.
53. Reza Karafi, M., Ghodsi, M. and Hojjat, Y. 2015. Development of Magnetostrictive Resonant Torsional Vibrator. *IEEE Transactions on Magnetics*, 51(9): ID 7097072.
54. Sheykholeslami, M., Hojjat, Y., Ghodsi, M., Kakavand, K. and Cinquemani S. 2015. Investigation of ΔE Effect on Vibrational Behavior of Giant Magnetostrictive Transducers. *Shock and Vibration*, 9: ID 478045.
55. Talebian, S., Hojjat, Y., Ghodsi, M., Karafi, M.R. and Mohammadi, S.M. 2015. A Combined Preisach-Hyperbolic Tangent Model for Magnetic Hysteresis of Terfenol-D. *Journal of Magnetism and Magnetic Materials*, 396:38-47.
56. Talebian, S., Hojjat, Y., Ghodsi, M. and Karafi, M.R. 2015. Study on Classical and Excess Eddy Currents Losses of Terfenol-D. *Journal of Magnetism and Magnetic Materials*, 388:150-159.

57. Thanigaivelan, R., Arunachalam, R. and Nagamanaicker, N. 2015. Study on Influence of Electrodes in Electric Discharge Machining. *Recent Patents on Mechanical Engineering*, 8:161-167.
58. Zaier, R. 2015. Rolling Optimization Method for Humanoid Robots. *SQU Journal for Science*, 20:78-87.
59. Zekri, S., Triki, C., Bazargan-Lari, M.R. and Al-Maktoumi, A. 2015. An Optimization-Simulation Approach for Groundwater Abstraction under Recharge Uncertainty. *Water Resources Management*, 29:3681-3695.

Conference Papers

1. Abdo, J., Sharji, H. 2015. Effect of Nano-Sepiolite on Rheological Properties and Filtration Loss of Water-Based Drilling Fluids. *16th European Conference on Applications of Surface and Interface Analysis 2015, ECASIA'15*, Granada, Spain, 28 September - 1 October 2015.
2. Abdo, J., Sharji, H. 2015. Fatigue Failure Investigation of Drillstring. *Tribology Frontiers Conference*, Denver, Colorado, USA, 25-27 October 2015.
3. Abdul-Wahab, S.A. and Fadlallah, S.O. 2015. Vehicle Emissions from Sultan Qaboos University in Oman: Line Source Case Study. In: *Proceedings of the 2015 International Conference on Biological and Environmental Science (BIOES-15)*, Phuket, Thailand, 1-3 October 2015.
4. Abu Mohareb, O., Huynh, P., Al-Janabi, A., Grimm, M. and Reuss, H. 2015. Electric Vehicles in the Gulf Region: In: *Performance and Potential. SAE 2015 World Congress*, Detroit, Michigan, USA, 21-23 April 2015.
5. Ahmadi, L., Panah, P.Y., Elkamel, A., Abdul-Wahab, S., Croiset, E., Douglas, P., Al-Adwani, S. and Entchev, E. 2015. Zonal Analysis of Phevs/Evs Penetration: A Mean to Mitigate Vehicle Emissions. In: *Proceedings of the 5th International Conference on Industrial Engineering and Operations Management (IEOM 2015)*, Dubai, United Arab Emirates, 3-5 March 2015.
6. Al Lawati, M. and Nielsen, C. 2015. Hybrid Virtual Holonomic Constraints for a 2-DOF Bipedal Robot. In: *IEEE 28th Canadian Conference on Electrical and Computer Engineering*, Canada. Halifax, 3-6 May 2015.
7. Al Shabibi, A.M. 2015. Numerical Solution for Tubular Expansion of Curved Pipe, *International Conference on Computational and Experimental Engineering and Sciences*, Reno, Nevada, USA, 20-24 July 2015.
8. Al Shabibi, A.M. and Tahat, M. 2015. Effect of Basin Geometry on Solar Still Thermal Performance, *International Conference on Renewable Energies and Power Quality*, La Coruna, Spain, 25-27 March 2015.
9. Al-Abri, O.S., Pervez, T. and Al-Maharbi, M. 2015. Mechanical and Microstructural Changes of Fine Grained C-Mn Steel Tubular Undergoing Down-hole Cold Expansion Process. IMECE2015-51568. In: *Proceedings of the ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE2015)*, Houston, Texas, USA, 13-20 November 2015.

10. Al-Azri, N. and Al-Saadi, S. 2015. The Effect of Variations in Typical Reference Year on Energy Analysis and Simulation for Residential Buildings. In: *Proceedings of the 5th International Conference on Energy and Environmental Science (ICEES 2015)*. Penang, Malaysia, 3-4 September 2015.
11. Al-Dhamri, H., Black, L. and Abdul-Wahab, S.A. 2015. Oil-Based Mud Cutting as an Additional Raw Material in Clinker Production: The Impact on Phase Composition. In: *Proceedings of the 14th International Congress on the Chemistry of Cement (ICCC 2015)*, Beijing, China, 13-16 October 2015.
12. Al-Hinai, N. and Piya, S. 2015. Jobshop Scheduling for Skill-Dependent Make-to-Order System. In: *Industrial Engineering and Operations Management (IEOM), 2015 International Conference*, Dubai, 3-5 March 2015.
13. Al-Maamari, M., Al-Badi, S., Saleem, A., Mesbah, M. and Hassan, E. 2015. Design of a Brain Controlled Hand Exoskeleton for Patients with Motor Neuron Diseases, In: *Proceedings of the 10th International Symposium on Mechatronics and its Applications*, Sharjah, United Arab Emirates, 8-10 December 2015.
14. Aloulou M.A., Fu, L.L. and Triki, C. 2015. Coordination D'ordonnement de Production et de Distribution Aval Avec des Temps de Réglage et des Fenêtres de Temps de Livraison. In : *Proceedings of the 16^{ème} Conférence ROADEF Société Française de Recherche Opérationnelle et Aide à la Décision*, Marseille (France), 2015.
15. Al-Rawahi, N., Myint, M.T. and Dutta, J. 2015. Experimental Study on Enhancement of Heat Transfer Using Nanoparticles Based Fluids. In: *Proceedings of the 25th Canadian Congress of Applied Mechanics (CANCAM2015)* London, Ontario, Canada, May 31 - June 4, 2015.
16. Ariz, M., Huda, N. and Husain, A. 2015. Thermal Performance Analysis of Jet Impingement with Effusion Scheme, In: *International Conference on Computational Heat and Mass Transfer-2015*. NIT Warangal, 30 November- 2 December 2015.
17. Arunachalam, R., Al-Ahmad, M., Maharaja, J., Mohan, S. and Al-Hinai, A.T. Nanostructured Ruthenium Oxide Electrodes for Supercapacitor Applications. In: *Proceedings of the 23rd International Conference on Materials and Technology, Portoroz*, Slovenia, 28-30 September 2015.
18. Arunachalam, R., Al-Maharbi, M., Al-Kiyumi, Y., Al-Thani, E. and Al-Mafraji, M. 2015. Production of Metal Matrix Composite using a Bottom Tapping Stir Casting Furnace. In: *Proceedings of the International Conference on Advances in Engineering Materials (ICAEM 2015), Jupiter*, Romania, 27-30 June 2015.
19. Boukhris Y., Al-Azri, N., Allani, Y. 2015. Solar Power Generation and Solar Cooling Trigeneration: A New Approach of Conceptual Design for Countries of Mena Region. In: *Proceedings of the International Conference on Future Building & District Sustainability from Nano to Urban Scale (CISBAT2015)*. Lausanne, Switzerland, 9-11 September 2015.

20. Boukhris, Y., Allani, Y., Al-Azri, N., Abdallah Saad, Z. 2015. A New Intelligent Predictive Solar-Gas Trigeneration System for Air Conditioning Industrial Spaces. In: *Proceedings of the International Conference on Future Building & District Sustainability from Nano to Urban Scale (CISBAT2015)*. Lausanne, Switzerland, 9-11 September 2015.
21. Fu, L.L., Aloulou, M.A. and Triki, C. 2015. Coordination Integrated Production and Outbound Distribution Scheduling Problem with Setup Times and Delivery Time Windows. In: *Proceedings of the Multidisciplinary International Scheduling Conference MISTA 2015*, Prague (Czech Republic), 2015.
22. Garbie, I.H. 2015. Assessment the Awareness of Sustainable Development in Manufacturing Enterprises. In: *Proceedings of the Industrial and Systems Engineering Research Conference*, Nashville, Tennessee, USA, 30 May-2 June 2015.
23. Garbie, I.H. 2015. Creating Index for Sustainability/Sustainable Development in an Industrial Estate. In: *CIE45 Proceedings*, Metz, France, 28-30 October 2015.
24. Garbie, I.H. 2015. Sustainability Analysis and Evaluation in Oil and Gas Industry. In: *Proceedings of the Industrial and Systems Engineering Research Conference*, Nashville, Tennessee, USA, 30 May-2 June 2015.
25. Hao, Y., Helo, P. and Shamsuzzoha, A. 2015. Implementation of Cloud-Based Data Exchange and Messaging Platform within Virtual Factory Environment. In: *Proceedings of the IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2015)*, Singapore, 6-9 December 2015.
26. Hassan, E.M. and Abdo, J. 2015. Development of Testing Facility to Investigate GRE Pipes Behavior in Harsh Environment. In: *Proceedings of the 10th International Conference on Composite Science and Technology (ICCST/10)*, Lisbon, Portugal, 2-4 September 2015.
27. Husain, A., Al-Azri, N.A., Samad, A., Kim, S.M. and Kim, K.Y. 2015. Spent Flow Effects in Multiple Micro-Jet Impingement Cooling. In: *Proceedings of the ASME-JSME-KSME 2015 Joint Fluids Engineering Conference. Microfluidic Summer Forum 2015*. COEX, Seoul, Korea, 26-31 July 2015.
28. Khan, R., Pervez, T. and Al-Abri, O.S. 2015. Modeling and Simulations of Transformation and Twinning Induced Plasticity in Advanced High Strength Austenitic Steels. IMECE2015-51953. In: *Proceedings of the ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE2015)*, Houston, Texas, USA, 13-20 November 2015.
29. Lahti, J., Helo, P. and Shamsuzzoha, A. 2015. Information System of Fractional Owned Virtual Hydropower System. In: *Proceedings of the 13th International Conference on ICT and Knowledge Engineering*, Bangkok, Thailand, 18-20 November 2015.

30. Özer, A., Ghodsi, M., Sekiguchi, A., Saleem, A., Al-Sabari, M.N. 2015. Finite Element and Experimental Evaluation of a Beam-type Twin Dynamic Vibration Absorber. In: *Proceedings of the ICENS*. Waseda University, Tokyo, Japan, 22-24 July 2015.
31. Pervez T., Al-Abri, O.S. and Qamar, S.Z. 2015. Minimization of Pop-Out Phenomenon Effect in Down-Hole Tubular Expansion. In: *ASME-2015 International Mechanical Engineering Congress and Exhibition (IMECE-2015)*, Houston, Texas, USA, 13-19 November 2015.
32. Piya, S. and Shamsuzzoha A. 2015. Performance Evaluation of Order Acceptance Decision under Static and Dynamic Settings. In: *Proceedings of the XXII International Conference on Industrial Engineering and Operations Management, Aviero, Portugal*, 6-8 July 2015.
33. Qamar, S.Z. 2015. Extrusion Shape Complexity: A Research/Industry Review. Invited Paper. In: *International Conference on Mechanical Engineering and Advanced Materials (ICME-AM 2015)*, Kota Kinabalu, Sabah, Malaysia, 3-4 December 2015.
34. Qamar, S.Z., Arunachalam, R. and Al-Rawahi, N.Z. 2015. Teaching Product Design in Line with Bloom's Taxonomy and ABET Student Outcomes. Accepted for presentation at *IEEE EDUCON2016 Global Engineering Education Conference*, Abu Dhabi, UAE, 10-13 April 2015.
35. Qamar, S.Z., Pervez, T. and Akhtar, M. 2015. Behavior of Swelling Elastomers in Water, Oil, and Acid. In: *TMS-2015 144th Annual Meeting and Exhibition*, Orlando, USA, 15-19 March 2015.
36. Sayari, M.A., Al-Yahmedi, A. and Masmoudi, N. 2015. Gait and Posture Responses to Backpack Load, In: *ECCOMAS Thematic Conference on Multibody Dynamics*, Barcelona, Catalonia, Spain, 29 June-2 July 2015.
37. Shamsuzzoha, A. and Helo, P. 2015. Business Collaboration-An Approach Towards end-to-end ICT Solutions for Virtual Factory. In: *Proceedings of the IFIP WG5.1 12th International Conference on Product Life Cycle Management (PLM 2015)*, Doha, Qatar, 19-21 October 2015.
38. Shamsuzzoha, A. and Helo, P. 2015. Collaborative Processes within Virtual Manufacturing Business Networks: How Smes Can be Benefited?. In: *Proceedings of the Fifth International Conference on Industrial Engineering and Operations Management (IEOM 2015)*, Dubai, UAE, pp. 2194-2198, 3-5 March 2015.
39. Shamsuzzoha, A., Al-Maskari, F., Al-Lawati, S., Al-Adawi, M., Al-Tamimi, M., Al-Hinai, N. and Al-Kindi, M. 2015. Measurement of Modularity Level within Selected Omani Small and Medium Size Enterprises. In: *Proceedings of the 17th International Dependency and Structure Modeling Conference, DSM 2015*, Fort Worth, Texas, USA, 4-6 November 2015.
40. Shamsuzzoha, A., Ehrs, M., Addo-Tengkorang, R. and Helo, P. 2015. Tracking and Tracing of Global Supply Chain Network: Case Study from a Finnish Company. In: *Proceedings of the 17th International Conference on Enterprise Information Systems (ICEIS 2015)*, Barcelona, Spain, 27-30 April 2015.

41. Shamsuzzoha, A., Sandhu, M. and Helo, P. 2015. Enabling Business Process Monitoring Through Peer-to-Peer Information Exchange in a Virtual Enterprise Environment. In: *Proceedings of the 4th International Conference on Virtual and Networked Organizations Emergent Technologies and Tools (VINOrg'15)*, Povo de Varzim, Portugal, 18-20 November 2015.
42. Sheykholeslami, M.R., Hojjat, Y., Cinquemani, S. and Ghodsi, M. 2015. Design and Simulation of Multi-Resonance Sonic Transducer using Terfenol-D, in *Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems 2015*, Jerome P. Lynch, Editors, In: *Proceedings of SPIE Vol. 9435* (SPIE, Bellingham, WA 2015), 94353G, 2015.
43. Sheykholeslami, M.R., Hojjat, Y., Cinquemani, S. and Ghodsi, M. 2015. Comparative Discussion between First and Second Modes of Terfenol-D Transducer, In *Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace Systems 2015*, Jerome P. Lynch, Editors, In: *Proceedings of SPIE Vol. 9435* (SPIE, Bellingham, WA 2015), 94353H, 2015.
44. Triki, C., Al-Hinai, N., Kaabachi, I., Jriji, D. and Krichen, S. 2015. A Periodic Petroleum Station Replenishment Problem: The Case of Oman. In: *Proceedings of the IEE CIPLS 2015 Conference*, Cape Town (South Africa), 2015.
45. Zaier, R., Zekri, S., Jayasuriya, H., Teirab, A., Hamza, N. and Al-Busaidi, H. 2015. Design and Implementation of Smart Irrigation System for Groundwater Use at Farm Scale. In: *Proceedings of the 7th International Conference on Modelling, Identification and Control (ICMIC 2015)*, Tunisia. Sousse, 18-20 December 2015.

Book Chapters

1. Al Obaidani, S., Al-Abri, M. and Al-Rawahi, N. 2015. Achieving the Zero-Liquid-Discharge Target Using the Integrated Membrane System for Seawater Desalination. In: Baawain, M., Choudri, B.S., Ahmed, M. and Purnama, A. (Eds.). *Recent Progress in Desalination, Environmental and Marine Outfall Systems*, Springer, pp. 53-72.
2. Al-Shabibi, A.M. and Tahat, M. 2015. Single Slope Solar Water Still with Enhanced Solar Heating System. *Recent Progress in Desalination, Environmental, and Marine Outfall Systems*, Springer, pp. 25-34.
3. Garbie, I.H. 2015. Non-Traditional Performance Evaluation of Manufacturing Enterprises. In: Bidanda, B., Sabuncuoglu, S. and Kara, Y.K. (Eds.). *Industrial Engineering Non-Traditional Applications*, CRC Press, Taylor & Fancies, Boca Raton, pp. 21-36.
4. Piya, S., Al-Hinai, N. 2015. Production Planning for Make-to-Order Flow Shop System under Hierarchical Workforce Environment, *Transactions on Engineering Technologies 2015*, In: Yang, G.C., AO, S.L. and Gleman, L. (Eds.). Springer, pp. 317-330.

Technical Reports

1. Abdo, J. and Al-Harhi, S. 2015. *Completion of commercial scale drilling facility*. Petroleum Development Oman (PDO) & Shell.
2. Abdul-Wahab, S.A. 2015. *Verification Audit for the Phase-Out Management Plan (HPMP) of Hydro Chlorofluorocarbons (HCFCs) in Oman*. External Research Contract Technical Report for United Nations Industrial Development Organization (UNIDO), Sultan Qaboos University, Sultanate of Oman.
3. Al Shabibi, Abdullah M., Al Moharbi, Majid and Pervez, Tasneem 2015. *Defects Interaction*, Technical report, Externally funded project by PDO, Oman.
4. Al-Hinai, N., Piya, S. and Al-Kindi, M. 2015. *A Study to Improve Productivity of Oman National Livestock Development Company*. Consultancy Technical Report, Sultan Qaboos University, Sultanate of Oman.
5. Al-Rawahi, N., Vakili, GR., Haji, A. 2015. *Investigating the Effectiveness of Implementing a New Design for Crude Oil Degasser Project*. External Research Project Technical Report, Petroleum Development Oman, Sultanate of Oman.
6. Husain A., Al-Azri, N. A. and Al-Rawahi N. Z. 2015. *Development of enhanced micro-scale heat transport designs and optimization models*. Internal Research Grant Technical Report, Sultan Qaboos University, Sultanate of Oman.
7. Husain A., Al-Azri, N. A., Al-Rawahi N. Z. 2015. *Development of enhanced micro-scale heat transport designs and optimization models*. Internal Research Grant Technical Report, Sultan Qaboos University, Sultanate of Oman.
8. Pervez, T., Qamar, S.Z. and Al-Abri, O.S. 2015. *Experimental and Numerical Investigation of Expandable Tubular at Multi levels of Materials and Mechanics*. The Research Council Progress Report, Sultan Qaboos University, Sultanate of Oman.
9. Piya, S., Al-Kindi, M. and Al-Rahawi, N. 2015. *Feasibility Analysis for Establishing Automobile Servicing Center at SQU*, Sultan Qaboos University, Sultanate of Oman.



OTHER ACTIVITIES

Short Courses

1. Afzal Husain, ANSYS Workshop on fluid flow, heat transfer and structural analysis, 18 March 2015.
2. Afzal Husain, ANSYS Workshop on fluid flow, heat transfer and structural analysis 6, 11, 12 October 2015.
3. Edris M. Hassan, Academic Integrity and Plagiarism, 20 September 2015.
4. Edris M. Hassan, Report Academic Integrity and Plagiarism, 26 March 2015.
5. Edris M. Hassan, Report Writing and Referencing, 20 September 2015.
6. Edris M. Hassan, Report Writing and Referencing, 26 March 2015.
7. Tasneem Pervez, FURAP, 16 December 2015.
8. Tasneem Pervez, Writing Effective Research Proposals, Caledonian College of Engineering, 21 October 2015.

Invited Talks

1. Qamar S.Z. 2015. Extrusion Shape Complexity: A Research/Industry Review. Invited Paper. International Conference on Mechanical Engineering and Advanced Materials (ICME-AM 2015), Kota Kinabalu, Sabah, Malaysia, 3-4 December, 2015.

Poster Presentation

1. Supervisor: Mohamed Ali Al Lawati, Students: Tariq Al Rushdi, Adnan Al Rahbi, Ibrahim Al Masoudi: First Place in the students poster competition at the International Symposium on Mechatronics and its Applications in the American University of Sharjah (ISMA 2015, UAE). Title of the project: "Activation 2-D Passive Bipedal Walker".

Cooperation with Local and Foreign Organizations

1. Abdullah Al Shabibi, Shell Eco Marathon Project (5000 OMR), Shell Oman, 2015.
2. Alam K., Enhancement in bone drilling process, Collaboration with Prof. Vadim Silberschmidt (UK), Dr. Mushtaq Khan (Pakistan).
3. Al-Hinai N., Solving the Periodic Petrol Station Replenishment Problem Using Heuristics and Metaheuristic Approaches, Collaboration with Prof. Saoussen Krichen (Tunisia).
4. Edris M. Hassan, Analytical and Numerical Micromechanical Modeling of Piezo-Electro-Magnetic-thermo-Elastic Smart Composite Structures - Part I Theory, Part II: Application, collaboration with Prof. Alex Kalamkarov, Dalhousie University, Canada.
5. Husain, A., Design and optimization of turbomachinery by using Numerical and surrogate techniques, Collaboration with Dr. Abdus Samad (IIT Madras, India).
6. Husain, A., Numerical analysis, visualization and experimental measurement of capillary-driven blood flow micro-channel mixing, Collaboration with Dr. Mohammad, O., Hamdan (UAE University, UAE).
7. Husain, A., Performance analysis, design and optimization of enhanced heat transport models at micro-scale, Collaboration with Prof. K.-Y. Kim (Inha University, Korea).
8. Husain, A., Performance enhancement and optimization of micromixers through numerical methods, Collaboration with Dr. Mubashshir A. Ansari (AMU, India).
9. Husain, A., Thermal and fluid flow characterization of microchannels using numerical techniques, Collaboration with Dr. Mohd. Zahid Ansari, (IIITDM Jabalpur, India).
10. Özer, A., Finite Element and Experimental Evaluation of a Beam-type Twin Dynamic Vibration Absorber, Collaboration with Dr. Akio Sekiguchi (Japan), 2015.

Students' activities/awards

1. Supervisor : Dr. Issam Bait Bahadur, Students: Nasser Said Nasser Al Bousaf, Shaas Abdullah Mohammed Al Rawahi, Zekariya Saud Mohammed Thunayyan Al Jabri, Faiz Abdussalaam Issa Al Rawahy, Abdul Rahman Rashid Hashil Al Maskari, Faculty Mentored Undergraduate Research Award Program (FURAP) scholarship, TRC-Oman, August, 2015.
2. Supervisor : Prof. Jamil Abdo, Dr. Majid Al-Moharbi, Students: Khalifa Saif Al-Jabri, Waleed Ubaid Al-Washahi, Ahmed Said Al-Saadi, Saif Salim Al-Wahaybi, Said Hilal Al-Jabri, Ali Abdullah Al-Kharusi (College of Education), Best Design Report Award, Honorable mention, International Submarine Race, NAVAL Surface Warfare Center (NSWC) - Carderock Division, Bethesda, Maryland, USA, June 2015 .
3. Supervisor : Prof. Tasneem Pervez, Dr. Khurshid Alam, Students: Sayyad Basim Qamar, Abdulrahman Saif Al Hadhrami, Ghosin Al Shukaili, 2nd Place in Design Competition, Design Competition, Mechanical Engineering Final Year Projects in May 2015, SQU.
4. Supervisor : Dr. Mojtaba Ghodsi, Dr. Abdullah Özer, Students: Hassan Al Busaidi, Mazin Al Busaidi, Al Mutasem Al Abri, Al Muhanad Al Mamari, First Place in Design Competition in, Design Competition, Mechanical Engineering Final Year Projects in May, 2015, SQU.
5. Supervisor : Prof. Tasneem Pervez, Dr. Khurshid Alam, Students: Sayyad Basim Qamar, Abdulrahman Saif Al Hadhrami, Ghosin Al Shukaili, 1st place, SQU Engineering Student Gathering, April 2015.
6. Supervisor : Dr. Issam Bait Bahadur, Students: Salim Khalfan Al-Mhrouqi, Sultan Bashir Al-Hatmi, Waleed abdullah AL-Shukaili, Abdulah Murshid Al-Maamri, Ayman Mohammed Al-Toubi, Undergraduate project support Scholarship, National Youth Commission, Oman, April, 2015.

Additional Activities

1. Al-Abri, O.S. and Pervez, T. 2015. Sample Preparations for EBSD Analysis using Scanning Electron Microscope, Collaboration with Gatan Incorporation (India) and Buhler (Germany).
2. Alam, K., Conducted a workshop on “Structural Analysis” organized by Society of Mechanical Engineering, SQU.
3. Alam, K., Seminar on “How to Design Effective Poster” to senior MIE students.
4. Al-Hinai, N., Presenting initial cost analysis and alternative solutions of SQU-Metro Project to the H.E. SQU Vice Chancellor and DVC-AFA, Sultan Qaboos University, Nov. 3rd, 2015.
5. Al-Hinai, N., Attended one-day workshop “Patent Search” held at Sultan Qaboos University, conducted by Prof. Siddharth Jabade, Coordinator, Intellectual Property Rights Facilitation Center, Vishwakarma Institute of Technology, Pune India, Nov 30, 2015.

6. Al-Hinai, N., Member of the Industrial Advisory Board of the Department of Systems Engineering at Military Technological College, Sultanate of Oman, July, 2015 – Present. Al-Hinai, N., Attended three-day workshop “How to Teach Engineering Students Process Skills” held at Sultan Qaboos University, conducted by Prof. Nikos Mourtous, Professor and Director of Aerospace Engineering, San José State University, May 26-28, 2015.
7. Al-Hinai, N., Session Chair, 2015 5th International Conference on Industrial Engineering and Operations Management (IEOM 2015), 3-5 March 2015, Dubai, UAE.
8. Al-Janabi A., Attending Preparing Engineering for a Globalized Economy: How to Teach Engineering Students Process Skills, Workshop, 26-28 May 2015, SQU, Muscat, Oman.
9. Edris M. Hassan, four seminars on Report Writing and Referencing, Academic Integrity and Plagiarism to ME FYP-I students, 2015.
10. Edris M. Hassan, Member of Design Jury, Society of Mechanical Engineering at Sultan Qaboos University for judging the “Projectile Launcher Competition”, April, 2015.
11. Edris M. Hassan, Session Chair, 10th International Conference on Composite Science and Technology for chairing a Session on Green Composites, September 2015, Lisbon - Portugal.
12. Husain, A., Served as Chief Advisor for The Second Indian National Conference on Science, Technology, Engineering Mathematics and Sustainability (STEMS). Oct. 4-5, 2015. Pune, India.
13. Husain, A., Served as Co-guest Editor for The Second Indian National Conference on Science, Technology, Engineering Mathematics and Sustainability (STEMS). Oct. 4-5, 2015. Pune, India.
14. Özer, A., ACENS International Committee Board Member, Tokyo, Japan, February, 2015.
15. Özer, A., Session chair of the 2nd ICENS, 2C, from 10:30-12:00, Thursday, 23/7/2015, Waseda University, Tokyo, Japan, 2015.
16. Tasneem Pervez, Advisor for Chemical Engineering Society Project “Use of Swelling Elastomers for Cementing: Strength and Microscopic Characterization” for Engineering Student Gathering 2015.
17. Tasneem Pervez. 2015. Writing Effective Research Proposals, Caledonian College of Engineering. 21st October, 2015, Muscat, Sultanate of Oman.





Petroleum and Chemical Engineering





SUMMARY

The Petroleum and Chemical Engineering Department (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 those 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.

Table E1: Summary

	2014	2015
Faculty	22	21
Support staff	12	9
Total	34	30
On-study leave	0	0
Undergraduate Program		
Enrolment	302	342
Courses offered	61	77
Graduates	80	108
Graduate Program		
Enrolment	49	47
Courses offered	17	14
Graduates	7	15
Research		
Grants (new approved)	5	6
Publications		
Refereed journals	45	45
Conference proceedings	14	15

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 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.



DEPARTMENTAL PROFILE



Dr. Rashid S. Al-Maamari

Professor, Head of the Department

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



Dr. Ali S. Al-Bemani

Associate Professor, 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 H. Al-Muhtaseb

Associate Professor

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



Dr. Farouq S. 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 A. 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 Director of Oil and Gas Center

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. Gujrathi

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 H. Al-Rawahi

Assistant Professor

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



Dr. Majid A. Al-Wadhahi

Assistant Professor

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



Dr. Mohammad Al-Abri

Assistant Professor

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



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 M. Al-Mandhary

Department Technician Superintendent

Research Intrest: Surface Area Analysis



Sabri S. Al-Khusaibi

Chief Technician C

Research Intrest: Rheology



Hamdan S. Al-Amri

Lab Supervisor B

Research Intrests: 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 Almazrui
Lab Supervisor B

Research Interests: Produced Oil Field Water, Cleaning and Utilization



Adel A. 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. Majid Al-Wadhahi (Chair) Dr. Ashish M .Gujarathi Dr. Gholamreza Vakili-Nejad Dr. Hamoud Al-Hadrami
PCED Publication and Web Coordinators	Dr. Ashish M. Gujarathi (Chair) Dr. Ala'a Al-Muhtaseb
PCED Information and Communication Committee	Dr. Gholamreza Vakili-Nejad
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) Dr. Jamil Naser (CHPE timetabling officer)
PCED Grades Review Committee	Dr. Hamoud Al-Hadrami Dr. Ashish M. Gujarathi
PCED Industrial Training Committee (In-House and Summer)	Dr. Adel Al-Ajmi (Chair) Dr. Ashish M. Gujarathi

PCED HSE Committee	Dr. Omar Houache (Chair) Dr. Farouq Mjalli Mr. Nasser Al-Mandhari Mr. Salim Al-Mazrui
PCED Societies Advisors	Dr. Adel Al-Ajmi (SPE, SQU) Dr. Farouq Mjalli (SCHEME)
PCED Staff-Student Liaison	Prof. Rashid Al-Maamari (HoD) Dr. Hamoud Al-Hadrami Two students from each cohort
PCED Strategic Planning and Development Committee	Dr. Hasan Abdellatif Hasan (Chair) Dr. Talal Al-Wahaibi Dr. Khalid Al-Rawahy Dr. Yahya Al-Wahaibi Dr. Ghulam Murshid
PCED Book and Library Coordinator	Dr. Ghulam Murshid
PCED Industrial Outreach and Community Services Committee	Dr. Mohammed Al-Abri (Chair) Dr. Rashid Al-Hajri
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 Board Secretary	Dr. Ghulam Murshid



UNDERGRADUATE STUDIES

Courses

Table E3: Courses Offered in Spring 2015

Code	Title	Instructor(s)
CHPE3101/10	Materials Engineering	Dr. Jamil Naser
CHPE3102/10	Engineering Thermodynamics	Dr. Ala'a Al-Muhtaseb
CHPE3103/10	Professional Practice	Dr. Hasan Hasan
CHPE3112/10	Principles of Chemical Processes	Dr. Jamil Nasser
CHPE3211/10	Apply Physical Chemistry	Dr. Dhawal Shah
CHPE3211/20	Apply Physical Chemistry	Dr. Dhawal Shah
CHPE3212/10	Chemical Process Industries	Dr. Mortaza Zivdar
CHPE3302/10	Fluid Flow	Dr. Talal Khamis Al-Wahaibi
CHPE3302/20	Fluid Flow	Dr. Ghulam Murshed
CHPE3402/10	Heat Transfer	Dr. Abdul Aziz Al-Hashmi
CHPE4114/10	Comp Aided Design	Dr. Ashish Gujrathi
CHPE4114/20	Comp Aided Design	Dr. Ashish Gujrathi
CHPE4192/10	Chemical Engineering Practice	Dr. Ghulam Murshid
CHPE4412/10	Process Heat Transfer	Dr. Gholamreza Vakili-Nejad
CHPE4412/20	Process Heat Transfer	Dr. Gholamreza Vakili-Nejad
CHPE4512/10	Chemical Reaction Engineering	Dr. Rashid Salim Al-Hajri
CHPE4512/20	Chemical Reaction Engineering	Dr. Rashid Salim Al-Hajri
CHPE4612/10	Unit Operation II	Dr. Hasan Hasan

Code	Title	Instructor(s)
CHPE4612/20	Unit Operation II	Dr. Hasan Hasan
CHPE4912/10	Special Topics II	Dr. Ala'a Al-Muhtaseb
CHPE5207/10	Petroleum Refining	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5207/20	Petroleum Refining	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5212/10	Chemical Engineering Lab III	Dr. Farouk Sabri Mjalli
CHPE5212/20	Chemical Engineering Lab III	Dr. Farouk Sabri Mjalli
CHPE5512/10	Project II	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5512/20	Project II	Dr. Ala'a Al-Muhtaseb
CHPE5512/30	Project II	Dr. Ghulam Murshid
CHPE5512/40	Project II	Dr. Farouk Sabri Mjalli
CHPE5512/50	Project II	Dr. Omar Houache
CHPE5512/60	Project II	Dr. Jamil Nasser
CHPE5512/70	Project II	Dr. Rashid Salim Al-Hajri
CHPE5512/80	Project II	Dr. Ashish Gujrathi
CHPE5512/90	Project II	Dr. Gholamreza Vakili-Nejad
CHPE5512/100	Project II	Dr. Dhawal Shah
CHPE5512/110	Project II	Dr. Talal Khamis Al-Wahaibi
CHPE5512/120	Project II	Dr. Hasan Abdellatif Hasan
PETM3006/10	Engineering Geology	Dr. Khalid Hilal Al-Rawahi
PNGE2102/10	Basic Mechanics	Dr. Abdullah Ozer
PNGE3202/10	Numerical Methods	Dr. Farouk Sabri Mjalli
PNGE3202/20	Numerical Methods	Dr. Farouk Sabri Mjalli
PNGE3212/10	Rock and Fluid Properties	Dr. Hamoud Khalfan Al-Hadrami
PNGE4101/10	Statistics for Engineers	Dr. Adel Mohammed Al-Ajmi
PNGE4101/20	Statistics for Engineers	Dr. Adel Mohammed Al-Ajmi
PNGE4512/10	Formation Evaluation	Dr. Hamoud Khalfan Al-Hadrami
PNGE4612/10	Well Testing	Dr. Rashid Salim Al-Maamari
PNGE4712/10	Reservoir Simulation	Dr. Majid Ahmed Al-Wadhahi
PNGE5102/10	Health, Safety and Environment	Dr. Omar Houache
PNGE5103/10	Engineering Economy	Dr. Mortaza Zivdar
PNGE5103/20	Engineering Economy	Dr. Mortaza Zivdar
PNGE5203/10	Management for PCE	Dr. Khalid Hilal Al-Rawahi
PNGE5215/10	Project II	Dr. Majid Ahmed Al-Wadhahi
PNGE5412/10	Field Processes of Natural Gas	Dr. Yahya Mansoor Al-Wahaibi

Table E4: Courses Offered in Fall 2015

Code	Title	Instructor(s)
CHPE3101/10	Materials Engineering	Dr. Jamil Naser
CHPE3102/10	Engineering Thermodynamics	Dr. Ala'a Al-Muhtaseb
CHPE3102/20	Engineering Thermodynamics	Dr. Ala'a Al-Muhtaseb
CHPE3103/10	Professional Practice	Dr. Hasan Abdellatif Hasan
CHPE3103/20	Professional Practice	Dr. Hasan Abdellatif Hasan
CHPE3112/10	Principles of Chemical Processes	Dr. Jamil Naser
CHPE3211/10	Apply Physical Chemistry	Dr. Ashish Gujrathi
CHPE3302/10	Fluid Flow	Dr. Ghulam Murshid
CHPE3402/10	Heat Transfer	Dr. Abdulaziz Rashid Al-Hashmi
CHPE4112/10	Chemical Eng. Thermodynamics	Dr. Dhawal Shah
CHPE4112/20	Chemical Eng. Thermodynamics	Dr. Ghulam Murshid
CHPE4212/10	Unit Operations I	Dr. Rashid Salim Al-Hajri
CHPE4212/20	Unit Operations I	Dr. Rashid Salim Al-Hajri
CHPE4312/10	Chemical Engineering Lab I	Dr. Omar Houache
CHPE4312/20	Chemical Engineering Lab I	Dr. Omar Houache
CHPE4712/10	Chemical Engineering Lab II	Dr. Hasan Abdellatif Hasan
CHPE4712/20	Chemical Engineering Lab II	Dr. Hasan Abdellatif Hasan
CHPE4912/10	Special Topics II	Dr. Abdul Aziz Rashid Al-Hashmi
CHPE5112/10	Chemical Process Control	Dr. Farouq Sabri Mjalli
CHPE5112/20	Chemical Process Control	Dr. Farouq Sabri Mjalli
CHPE5312/10	Project I	Dr. Ashish Gujrathi
CHPE5312/20	Project I	Dr. Ala'a Al-Muhtaseb
CHPE5312/30	Project I	Dr. Omar Houache
CHPE5312/40	Project I	Dr. Jamil Naser
CHPE5312/50	Project I	Dr. Talal Khamis Al-Wahaibi
CHPE5312/60	Project I	Dr. Abdulaziz Rashid Al-Hashmi
CHPE5312/70	Project I	Dr. Gholamreza Vakili-Nejad
CHPE5312/80	Project I	Dr. Rashid Salim Al-Hajri
CHPE5312/90	Project I	Dr. Mohammed Zaher Al Abri
CHPE5312/100	Project I	Dr. Farouq Sabri Mjalli
CHPE5312/110	Project I	Dr. Hasan Abdellatif Hasan
CHPE5312/120	Project I	Dr. Ghulam Murshid
CHPE5412/10	Plant and Process Design	Dr. Hasan Abdellatif Hasan
CHPE5412/20	Plant and Process Design	Dr. Hasan Abdellatif Hasan

Code	Title	Instructor(s)
CHPE5612/10	Chemical Process Safety	Dr. Omar Houache
PETM3006/10	Engineering Geology	Dr. Khalid Hilal Al-Rawahi
PNGE3111/10	Chemistry for Petroleum Engineering	Dr. Abdulaziz Rashid Al-Hashmi
PNGE3112/10	Introduction to PNGE	Dr. Hamoud Al-Hadrami
PNGE3202/10	Numerical Methods	Dr. Ashish Gujrathi
PNGE4101/10	Statistics for Engineering	Dr. Omar Houache
PNGE4101/20	Statistics for Engineering	Dr. Adel Mohammed Al-Ajmi
PNGE4212/10	Drilling Technology	Dr. Hamoud Khalfan Al-Hadrami
PNGE4312/10	Drilling Technology Lab	Dr. Hamoud Khalfan Al-Hadrami
PNGE4312/20	Drilling Technology Lab	Dr. Hamoud Khalfan Al-Hadrami
PNGE4412/10	Reservoir Engineering	Prof. Rashid Salim Al-Maamari
PNGE5103/10	Engineering Economy	Dr. Ashish Gujrathi
PNGE5112/10	Production Engineering	Dr. Yahya Mansoor Al-Wahaibi
PNGE5115/10	Project I	Dr. Majid Ahmed Al-Wadhahi
PNGE5122/10	Introduction to Rock Mechanics	Dr. Adel Mohammed Al-Ajmi
PNGE5203/10	Management for PCE	Dr. Khalid Hilal Al-Rawahi
PNGE5212/10	Secondary Oil Recovery	Dr. Majid Ahmed Al-Wadhahi



POSTGRADUATE STUDIES

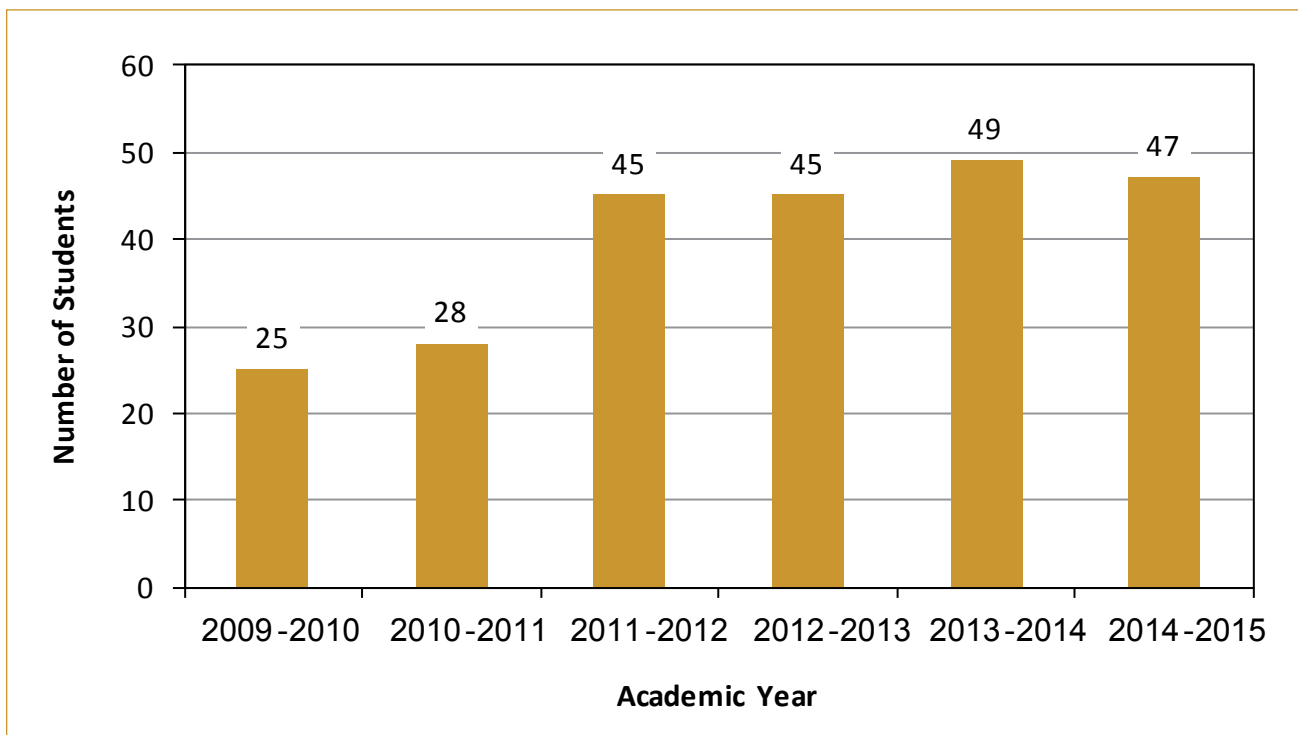


Figure E1: Postgraduate Students' Enrolment for the Past Six Years

Courses

Table E5: Postgraduate Courses Offered in in Year 2015

Semester	Code	Title	Instructor(s)
Fall 2015	CHPE6200/10	Advanced Chemical Thermodynamic	Dr. Gholamreza Vakili-Nejad
	CHPE6900/10	Special Topics	Dr. Farouk Sabri Mjalli
	CHPE7001/10	Thesis	-
	CHPE8001/10	PhD Thesis	-
	PNGE6001/10	Transport Processes	Dr. Peyman Pourafshary
	PNGE6101/10	Advance Production Engineering	Dr. Peyman Pourafshary
	PNGE6108/10	Thermo physical Properties of Fluids	Dr. Gholamreza Vakili-Nejad
	PNGE7001/10	Thesis	-
	PNGE8001 /10	PhD Thesis	-
Spring 2015	CHPE6100/10	Advanced Transport Phenomena	Dr. Gholamreza Vakili-Nejad
	CHPE6300/10	Advanced Chemical Reaction	Dr. Ashish Gujrathi
	CHPE6510/10	Process Optimization	Dr. Omar Houache
	CHPE8001/10	PhD Thesis	-
	PNGE6002/10	Advanced Reservoir Engineering	Dr. Peyman Pourafshary
	PNGE6105/10	Oil Recovery Methods	Dr. Peyman Pourafshary

Postgraduate Students' Thesis

Table E6: Students' Projects in Year 2015

No	Student Name	Thesis Title
1	Manal Al Matrushi	Simulation of Nanofluid Injection as an Enhanced Oil Recovery Method
2	Omnia Al Rujabi	Simulation Study of Wettability Alteration by Deep Eutectic Solvent Injection as an EOR Agent for Heavy Oil Reservoirs
3	Nidaa Al Malki	Controlling Bentonite Based Drilling Mud Rheological Properties using Sepiolite Nanoparticles
4	Wiam Al Touqi	Experimental Study on the Effect of Deep Eutectic Solvents on Enhancing Heavy Oil Recovery in Carbonate Reservoirs
5	Asim Al Abri	Modified Cubic Equation of State for Improved Oil Density Prediction
6	Alaeddine Abdelmajid Bouazza	Experimental Verification of Different Low Salinity Waterflooding Proposed Mechanisms in Sandstones

No	Student Name	Thesis Title
7	Ghalia Al Alawi	Enhancing Artificial Neural Network Training Performance for Prediction of Reservoir Rock Types
8	Yousuf Abdullah Salim Al-Hashemi	Iron Based Scale in a Sour Oil Field: Sources Identification, Simulation, Treatment and Prevention
9	Amal Al Lamki	Saturation-Height Model of the Amin Formation in Oman Tight Gas Reservoir
10	Safa Al Baqlani	Mechanical Degradation of for Polymers and Its Effect on Droplet Size of Diluted Oil-In-Water Emulsion Produced using Marmul Fluids
11	Zaharaddeen Sani Gano (PhD)	Deep Desulfurization of Liquid Fuels with Green Solvents: an Approach With Deep Eutectic Solvents
12	Salim Said Salim Al Hakmani	Performance Prediction of Foam Assisted Steam Flooding Application in a Sandstone Reservoir
13	Badria Al Siyabi	Optimization of Selected Biochemical Processes Production using Evolutionary Algorithms
14	Hajir Al Farsi	The Effect of Nanoparticles on Enhancing Heavy Oil Recovery using Microwave Assisted Gravity Drainage (Mwagd) Process
15	Suleiman Mohammed Shuwa (PhD)	In Situ Catalytic Upgrading of Omani Heavy Crude Oil



RESEARCH

Grants, Contracts and Consultancies

Table E7: New Grants, Contracts and Consultancies by Faculty Members in Year 2015

Research Title	Principal Investigator	Budget (OMR)	Funded by
Application of Fast Reservoir Simulation Methods to Optimize Oil Production	Dr. Peyman Pourafshary	7,000	SQU
Density Prediction Hydrocarbons using Ultrasonic Measurements and Molecular Dynamics Simulations	Dr. Gholamreza Vakili-Nezhaad	5,000	SQU
Solar Desalination and Hot Water Production using a Falling Film Enhanced by Counter Current Air Flow	Dr. Hasan Abdellatif Hasan	7,000	SQU
Colloidal Dispersion Gel- a New Conformance Control Method for Omani Fields	Prof. Rashid Al-Maamari	78,987	PDO
Mechanistic Study of Alkaline-Surfactant-Polymer EOR	Dr. Yahya Al-Wahaibi	88,190	PDO
MOVIS Technology: Heavy Oil Upgrading and Enhancing Oil Recovery	Dr. Rashid Al-Hajri	3,952	Gulf Investment Services LLC

Publications

Refereed Journal Papers

1. Abubakar, A., Al-Hashmi, A.R., Al-Wahaibi, T., Al-Wahaibi, Y., Al-Ajmi, A. and Eshrati, M. 2015. Performance of A Drag-Reducing Polymer in Horizontal and Downward-Inclined Oil–Water Flow. *Chemical Engineering Research and Design*, 104:237-246.
2. Abubakar, A., Al-Wahaibi, T., Al-Hashmi, A.R., Al-Wahaibi, Y., Al-Ajmi, A. and Eshrati, M. 2015. Influence of Drag-Reducing Polymer on Flow Patterns, Drag Reduction and Slip Velocity Ratio of Oil-Water Flow in Horizontal Pipe. *International Journal of Multiphase Flow*, 73:1-10.
3. Abubakar, A., Al-Wahaibi, Y., Al-Wahaibi, T., Al-Hashmi, A., Al-Ajmi, A. and Eshrati, M. 2015. Effect of Low Interfacial Tension on Flow Patterns, Pressure Gradients and Holdups of Medium-Viscosity Oil/Water Flow in Horizontal Pipe. *Experimental Thermal and Fluid Science*, 68:58-67.
4. Ahmadzadeh, P., Masihi, M., Al-Ajmi, A., Al-Wahaibi, T. and Al-Wahaibi, Y. 2015. Experimental Study of the Effects of IFT and Hysteresis on Resistivity and Capillary Pressure of Carbonate Rocks. *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*, 37:1346-1353.
5. Ahmed, O.U., Mjalli, F.S., Al-Wahaibi, T., Al-Wahaibi, Y., AlNashef, I.M. 2015. Optimum Performance of Extractive Desulfurization of Liquid Fuels Using Phosphonium and Pyrrolidinium-Based Ionic Liquids. *Industrial and Engineering Chemistry Research*, 54:6540-6550.
6. Ahmed, O.U., Mjalli, F.S., Al-Wahaibi, T., Al-Wahaibi, Y., Alnashef, I.M. 2015. Stability of Superoxide Ion in Phosphonium-Based Ionic Liquids. *Industrial and Engineering Chemistry Research*, 54: 2074-2080.
7. Ahmed, O.U., Mjalli, F.S., Gujarathi, A.M., Al-Wahaibi, T., Al-Wahaibi, Y., AlNashef, I.M. 2015. Feasibility of Phosphonium-Based Ionic Liquids as Solvents for Extractive Desulfurization of Liquid Fuels. *Fluid Phase Equilibria*, 401:102-109.
8. Al-Maamari, R.S., Vakili-Nezhaad, G. and Vatani, M. 2015. Experimental and Modeling Investigations of the Viscosity of Crude Oil Binary Blends: New Models Based on the Genetic Algorithm Method. *Journal of Engineering Research*, 11:81-91.
9. Al-Otoom, A., Al-Rub, F. Ä., Mousa, H. and Shadeed, M. 2015. Continuous Solar Drying of Sludge from a Waste Water Treatment Plant. *Journal of Renewable and Sustainable Energy*, 7:043137.
10. Al-Wahaibi, T., Al-Wahaibi, Y., Al-Hashmi, A.-A.R., Mjalli, F.S. and Al-Hatmi, S. 2015. Experimental Investigation of the Effects of Various Parameters on Viscosity Reduction of Heavy Crude by Oil–Water Emulsion. *Petroleum Science*, 12:170-176.

11. Al-Wahaibi, T., Angeli, P. 2015. A Semi-Empirical Model for Predicting the Onset of Drop Formation in Stratified Horizontal Oil-Water Flow. *Chemical Engineering Communications*, 202:415-419.
12. Atta, A. Y., Shuwa, S.M., Naser, J.T. and Jibril, B.Y. 2015. Effect of Alkali and Transition Metal Cations-Modified-ZSM-5 Catalysts in Oxidative Dehydrogenation of Propane to Propylene. *Asian Journal of Chemistry*, 27:307-312.
13. Bagrezaie, M.A. and Pourafshary, P. 2015. Improvement of Surfactant Flooding Performance by Application of Nanoparticles in Sandstone Reservoirs. *Journal of the Japan Petroleum Institute*, 58:97-102.
14. Bahadori, L., Chakrabarti, M.H., Hashim, M.A., Manan, N.S.A., Mjalli, F.S., AlNashef, I.M., Brandon, N.P. 2015. Temperature Effects on the Kinetics of Ferrocene and Cobaltocenium in Methyltriphenylphosphonium Bromide Based Deep Eutectic Solvents. *Journal of the Electrochemical Society*, 162: H617-H624.
15. Bahadori, L., Chakrabarti, M.H., Manan, N.S.A., Hashim, M.A., Mjalli, F.S., AlNashef, I.M., Brandon, N. 2015. The Effect of Temperature on Kinetics and Diffusion Coefficients of Metallocene Derivatives in Polyol-Based Deep Eutectic Solvents, PLoS ONE, 10:e0144235.
16. Chakrabarti, M.H., Manan, N.S.A., Brandon, N.P., Maher, R.C., Mjalli, F.S., AlNashef, I.M., Hajimolana, S.A., Hashim, M.A., Hussain, M.A., Nir, D. 2015. One-Pot Electrochemical Gram-Scale Synthesis of Graphene using Deep Eutectic Solvents and Acetonitrile. *Chemical Engineering Journal*, 274: 213-223.
17. Eshrati, M., Al-Hashmi, A.R., Al-Wahaibi, T., Al-Wahaibi, Y., Al-Ajmi, A. and Abubakar A. 2015. Drag Reduction Using High Molecular Weight Polyacrylamides During Multiphase Flow of Oil and Water: A Parametric Study. *Journal of Petroleum Science and Engineering*, 135:403-409.
18. Gano, Z.S., Mjalli, F.S., Al-Wahaibi, T., Al-Wahaibi, Y., AlNashef, I.M. 2015. Extractive Desulfurization of Liquid Fuel with FeCl₃-Based Deep Eutectic Solvents: Experimental Design and Optimization by Central-Composite Design. *Chemical Engineering and Processing: Process Intensification*, 93:10-20.
19. Ghassemzadeh, S. and Pourafshary, P. 2015. Development of an Intelligent Economic Model to Optimize the Initiation Time of Gas Lift Operation. *Journal of Petroleum Exploration and Production Technology*, 5:315-320.
20. Gujarathi, A.M., Purohit, S., Shrikanth, B. 2015. Optimization of Reactor Network Design Problem Using Jumping Gene Adaptation of Differential Evolution. *Journal of Physics: Conference Series*, 622:1-8.
21. Gujarathi, A.M., Sadaphal, A., Bathe, G.A. 2015. Multi-Objective Optimization of Solid State Fermentation Process. *Materials and Manufacturing Processes*, 30:511-519.
22. Hizaddin, H.F., Hadj-Kali, M.K., Alnashef, I.M., Mjalli, F.S., Hashim, M.A. 2015. Prediction of CO₂ Solubility in Ionic Liquids Using the PSRK Model. *Journal of Supercritical Fluids*, 100:184-193.

23. Laxman, K., Myint, M.T.Z., Al Abri, M., Sathe, P., Dobretsov, S. and Dutta, J. 2015. Desalination And Disinfection Of Inland Brackish Ground Water In A Capacitive Deionization Cell Using Nanoporous Activated Carbon Cloth Electrodes. *Desalination*, 362:126-132.
24. Miresmaili, O., Pourafshary, P. and Jalali, F. 2015. A Novel Multi-Objective Estimation of Distribution Algorithm for Solving Gas Lift Allocation Problem. *Journal of Natural Gas Science and Engineering*, 23:272-280.
25. Mirzaei, A., Saboorian, H. and Pourafshary, P. 2015. Improved Method to Identify Hydraulic Flow Units for Reservoir Characterization. *Energy Technology*, 3:726-733.
26. Mjalli, F., Al-Wahaibi, T., Al-Hashmi, A. 2015. Effect of Nano-Particles on the Rheological Properties of Reline. *Journal of Molecular Liquids*, 206:256-261.
27. Mjalli, F.S., Naser, J. 2015. Viscosity Model for Choline Chloride-Based Deep Eutectic Solvents. *Asia-Pacific Journal of Chemical Engineering*, 10:273-281.
28. Mjalli, F.S., Shah, D. 2015. Simulation Based Insight into Solvation Properties of Ferric Chloride Based Eutectic Solvent. *Chemical Engineering Transactions*, 43:1843-1848.
29. Mjalli, F.S., Shahbaz, K., Alnashef, I.M. 2015. Modified Rackett Equation for Modelling the Molar Volume of Deep Eutectic Solvents, *Thermochimica Acta*, 614:185-190.
30. Mohsenzadeh, A., Al-Wahaibi, Y., Al-Hajri, R. and Jibril, B. 2015. Effects of Concentration, Salinity and Injection Scenario of Ionic Liquids Analogue in Heavy Oil Recovery Enhancement. *Journal of Petroleum Science and Engineering*, 133:114-122.
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33. Moradi, B., Pourafshary, P. and Jalali, F. 2015. Experimental Study of Water-based Nanofluid Alternating Gas Injection as a Novel Enhanced Oil-Recovery Method in Oil-Wet Carbonate Reservoirs. *Journal of Natural Gas Science & Engineering*, 27: 64-73.
34. Mousa, H. and Al-Silwadi, M. 2015. Variation in Methane Concentration Produced from Anaerobically Digested Vegetables. *The Engineering Research Journal*, 12:32-40.
35. Muhammad, A.S., Naser, J.T., Kirm, I. and Jibril, B.Y. 2015. Effects of Operating Parameters on Photocatalytic Degradation of Methylene Blue or Phenol on Supported Titanium-Based Catalysts. *Asian Journal of Chemistry*, 27:313-320.

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40. Salahudeen, N., Ahmed, A.S., Al-Muhtaseb, A.H., Jibril, B.Y., Al-Hajri, R., Waziria, S. M. and Dauda, M. J. 2015. Microwave-Assisted Adsorptive Desulfurization of Model Diesel Fuel Using Synthesized Microporous Rare Earth Metal-Doped Zeolite Y. *The Journal of Engineering Research*, 12:44-52.
41. Sameni, A., Pourafshary, P., Ghanbarzadeh, M., and Ayatollahi, S. 2015. Effect of Nanoparticles on Clay Swelling and Migration. *Egyptian Journal of Petroleum*, 24(4): 429-437.
42. Shaikh, M.S., Shariff, A.M., Bustam, M.A. Murshid, G. 2015. Physicochemical Properties of Aqueous Solutions of Sodium Glycinate in the Non-Precipitation Regime from 298.15 to 343.15 K. *Chinese Journal of Chemical Engineering*, 3:013-018.
43. Shaikh, M.S., Shariff, A.M., Bustam, M.A., Murshid, G. 2015. Measurement and Prediction of Physical Properties of Aqueous Sodium L-Proline and Piperazine as a Solvent Blend for CO₂ Removal. *Chemical Engineering Research and Design*, 102:378-388
44. Shuwa, S.M., Al-Hajri, R.S., Jibril, B.Y. and Al-Waheibi, Y.M. 2015. Novel Deep Eutectic Solvent-Dissolved Molybdenum Oxide Catalyst for the Upgrading of Heavy Crude Oil. *Industrial & Engineering Chemistry Research*, 54:3589-3601.
45. Ullah, S., Shariff, A.M., Nadeem, M., Bustam, M. A., Shahid, S.A., Murshid, G. and Mushtaq, M. 2015. Synergistic Effect of Thiourea and Surfactants on Corrosion Inhibition of Stainless Steel-410 in Presence of Sulfuric Acid. *Applied Mechanics and Materials*, 699:186-191.

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1. Abubakar, A., Al-Wahaibi, T., Al-Hashmi, A.R., Al-Wahaibi, Y., Al-Ajmi, A. and Eshrati, M. 2015. In: Influence of Drag-Reducing Polymer on Holdup/Slip Ratio of Oil-Water Flow in Horizontal and Inclined Pipes. In: *13th International Symposium on Fluid Control, Measurement and Visualization*, Doha, Qatar, 15-18 November 2015.
2. Abubakar, A., Al-Wahaibi, T., Al-Hashmi, A.R., Al-Wahaibi, Y., Al-Ajmi, A. and Eshrati, M. 2015. Drag Reduction with Polymer in Oil-Water Flow in Relatively Large Pipe Diameter. In: *International Symposium on Engineering Mechanics and Applied Sciences*, Bangkok, Thailand, 11-12 September 2015.
3. Abubakar, A., Al-Wahaibi, T., Al-Hashmi, A.R., Al-Wahaibi, Y., Al-Ajmi, A. and Eshrati, M. 2015. Effect of Drag-Reducing Polymer on Pressure Gradients of Dispersed Oil-Water Flow in Horizontal and Inclined Pipes. In: *17th International Conference on Multiphase Technology*, NOVOTEL Montfleury, Cannes, France, 10-12 June 2015.
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2. Al-Hajri, R. and Al-Wahaibi, Y. 2015. *In-situ Catalytic Upgrading of Omani Heavy Crude Oil during Steam Injection*, Final report, The Research Council.
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OTHER ACTIVITIES

Short Courses and Conferences

1. The Bryan Research & Engineering INC. organized training cum workshop on Level-1 Gas processing at Sultan Qaboos University during January 25-27, 2015. Dr. Rashid Al-Hajri and Dr. Ashish M Gujrathi coordinated the event from SQU side. Participants from different industries in Oman and SQU faculties have attended this workshop.
2. Promax users Conference 2015 was jointly organized (during 4-5 October 2015) by Bryan Research & Engineering Inc., Petroleum Development of Oman (PDO) and Petroleum and chemical Engineering Department of Sultan Qaboos University. Dr. Rashid Al-Hajri and Dr. Ashish M. Gujrathi from SQU organized the event.
3. The Bryan Research & Engineering INC. organized training cum workshop on Level-1 Gas processing at Sultan Qaboos University during May 31- June 2, 2015. Dr. Rashid Al-Hajri and Dr. Ashish M Gujrathi coordinated the event from SQU side. Several participants from industry were benefitted after attending this workshop.

Invited Talks

1. Mr. Nasser Al-Masrouri, Senior Engineer Optimization Services and Initiatives, Oman Oil Refineries and Petroleum Industries (ORPIC) delivered an invited talk on ProcessOptimization by Advanced Process Control. Date: 12/03/2015.
2. Dr. Talal Al-Aulaqi, Reservoir Engineer, Petroleum and Development Oman (PDO) delivered an invited talk on Enhanced Oil Recovery: What PDO Need from Research and Development? Date: 23/04/2015.

Students Activities (Society of Chemical Engineers)

Awards

- Achieved the gold award at 26th International Invention, International and Technology Exhibition in Malaysia (23/3/2015).
- Injazatuna award 2015 in science field for “Gas Separation using Omani Clay Project” from the Ministry of Sports Affairs of Oman (12/5/2015).

Workshops, Short Training Courses and Competitions

1. 10th Chemical Engineering Gathering (15/3/2015): The exhibition was held at SQU by SChemE mainly to show projects of CHPE students from different universities and colleges in Oman.
2. Engineering Challenge (25/3/2015): The competition was held at SQU by SChemE to improve creative thinking and teamwork skills for the engineering students.
3. Curriculum vitae (CV) workshop (22/11/2015): The workshop was offered especially for the Engineering students. It was presented by Takatuf Oman Foundation.
4. Interview workshop (24/11/2015): The workshop was offered especially for the CHPE graduating students. It was presented by Takatuf Oman Foundation.
5. Achieved the gold award at 26th International Invention, International and Technology Exhibition in Malaysia (23/3/2015).
6. Participation at Green Energy Expo “The 12th International Green Energy Expo and Conference (IGEEC 2015)” (1-3/4/2015).
7. Participation of one CHPE student at the 10th Gulf Petrochemical Conference Association (17-19/11/2015).

Students Activities (Society of Petroleum Engineers)

Workshops, Short Training Courses and Competitions

1. Workshop about “How to be an Engineer” (3/3/2015): The workshop was conducted on Thuria Bint Mohammed Albu-Saeedi School and it discussed the basic Engineering concepts.
2. Degree plan workshop (28/9/2015): The workshop was conducted especially for the new specialized students. It is conducted to help students to match with plan and to avoid being delayed.

3. Workshop about “Petroleum Engineering” (11/10/2015): The workshop was conducted on Darsit Coast School and it discussed the basic Petroleum and Natural gas Engineering.
4. “Petro-Chmp” competition (9/11/2015): It is a competition organized by SPE students on “SQU”. The participants were both PNGE students and Geology department students.
5. Forecasting for the PNGE students FYP workshop (9/11/2015): The workshop was conducted especially for the final year students in the task mentioned. It includes the Historical Matching and Production Matching.
6. Industrial Training workshop (9/12/2015): The workshop was conducted especially for the fourth year students. It includes categories of companies and their services.
7. Visit to “AL-Aajal School” (13/12/2015) and the lecture was organized-titled as “Ambition”.



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