Research Unit

Annual Report 2016-17

(December 2017, Pages 15)

Contents

1. Introduction

The Muscat College (MC) mission is to provide quality higher education in management and information technology in Oman within a culture of creativity and innovation. The main purpose of this document is to substantiate with evidences, the obligations on staff and students who undertake research activity. The report is covering all the departments engaged in research activity, embodied in different disciplines. It primarily has work done by academic staff, including undergraduate and postgraduate students engaged in projects.

1.1 Purpose

The purpose of this report is to provide an annual report on all research activities, development and management at MC. It also reflects the improvements done in the research environment of the college for the academic staff and students who carry out their research.

1.2 Research Policy Principles

Policy on Research in MC encapsulates the following core principles:
- To ensure that a wide range of research is conducted in all disciplines.
- To improve the capacity of researchers and to develop the research capability of MC.
- To promote respect for research ethics, protection of research achievements and dissemination of research results.
- Develop effective procedures for grant and contract management.
- Facilitate efforts by staff and students to attract external funds in support of research.
- Ensure effective documentation and tracking of funding opportunities through the College, research council (TRC) grants, government organizations and local industries designed to
- Promote research in the institution.
- To encourage the utilization of research results for producing new knowledge and developments.

2. Research Unit Performance Criterion

The performance of the research unit is prepared and measured against the criteria specified by OAAA. It is prudent for the unit to present the performance as per these criteria to facilitate alignment with quality standards and maintain uniformity over various period reports.

There are eight criterions relevant to the unit, which are discussed in detail in following sub-sections.

2.1 Research Planning & Management

There was couple of areas under these criteria where good progress was made in the year 2016-17.

Research Fund- during this year, the top management has allocated around 7,300 RO for research activities. This budget was utilized for providing funding to staff but it wasn't utilized to its fullest extent.

Research Policy- there research policy has gone through a number of stages and drafts which by now the research policy reached to its almost final shape with multiple iterations of improvements. The policy is now under modification and it will be circulated among Academic Steering Committee (ACSC) members for getting their final approval.

Research Strategic and Operation Plan- the Strategic and Operation Plan of the research unit was prepared and approved in ACSC. This plan was aligned to the strategic plan of the Muscat College. The research goals were set according the college wide goals. The full achievement of the set goals could not be as per the plan for two reasons, (a) lack of research fund available internally and externally, and (b) faculty are spending more time in teaching and administrative duties than on research.

Risk Register- The research unit developed a risk register to identify various risks related to the research in the college with detailed description of its nature, impact, cost implications and the possible mitigation actions to be taken. The responsibility was also identified with persons/committees for taking appropriate actions. The implementation of the actions suggested in risk register was visible towards the end of the year, with more new staff being recruited and other actions being taken by the college

management. However, these were partially meeting the risks identified. Meeting all the risks involved more resources that were not feasible looking to bad economic situation.

2.2 Annual Research Performance

The research performance was acceptable giving the limited research support by the College in terms of fund and time allocation. There were number of research workshops and training programs organized for staff and students. The staff participated in conferences at national and international levels. There were publications made by staff in academic journals however most of these journals are not indexed by Scopus or Web of Science. There were some funded research projects also secured by staff and some of those successfully complete during the year. The detailed list is provided in the Appendix A.

The research work was supported through awarding paid leaves to staff and transferring their regular responsibilities to others. A total of 2 staff members earned their doctoral degrees from Business & Accounting and Computing departments with such support. Other research activities in terms of participation in conferences and workshops were are outlined in more details below.

2.3 Research Funding Schemes

The research funding was largely through the research unit and the external agencies such as the Research Council of Oman (TRC). The college provided indirect support through allowing paid leaves for research under different areas. The TRC funding scheme helped staff and students do some research projects with benefits to their knowledge and overall society. Some of the funding schemes (FURAP) available from TRC (The Research Council) were used by the students in college for their research under supervision and guidance of faculty members. There were two projects working with grants and both were successful completion. The details are there in Appendix A. There is one research projects approval from TRC this year.

2.4 Ethics and Biosafety

The nature of research in Muscat College does not involve experiments with chemicals or other hazardous equipments or elements that can pose danger to humans or

environment. All of the researches done in the college involved humans responding to questionnaires posed by the researcher or developing some program or algorithm for technology devices. Hence ethical and bio-safety concerns were not there. There was no research involving hazardous or bio-chemical waste carried out by the college staff. There were no experiments conducted involving living beings. The ethics part involving information sought and privacy of data was ensured through getting ethics form signed by the researchers. This form was applicable for students and staff and was used in all research.

2.5 Intellectual Property (IP)

The college has produced a section on IP rights during the year. All details are included in the research policy and appropriately linked to the IP laws of Oman and confirming to the international laws.

2.6 Professional Development for Research

There was limited research workshops organised for students to provide them theoretical and practical inputs on carrying out good quality research. This area needs further improvement and development in the coming year. Students are only engaging in research skills at the last year of their study.

The staff development workshops were also conducted. The staffs were oriented about how to do the research in a professional manner. 4 workshops conducted in the Business and Accounting department and targeted to all employees in the college.

The professional development through participation in research conferences and seminars was also encouraged by the unit. In the year the information and details of number of awards, conferences information was shared and promoted with staff and students in the college. The head of the unit provided the salient features of these research activities in simplified language because staff many time don't have time to go through all details running into 2-3 pages. The coordination with organising agencies was also facilitated wherever there was interest shown by staff/students.

2.7 Research Commercialisation

There was no research that reached to commercialization stage in year 2016-17. If in future some research reach to that level, the research policy has guidelines for the same.

2.8 Research – Teaching nexus

The objective of Muscat College is to promote research that benefits its students also. In order to achieve this objective it is ensured that research carried out in the college is linked to the teaching. In the year under review, initial steps were taken in this direction by the research unit through collecting evidences of the research conducted by staff and classifying according to research areas. The research output is linked to the teaching by some staff through class discussions and case studies with students. However, more work is needed to ensure that the implementation and documentation of these criteria is effectively done.

3. Conclusion

The research unit made some progress during the year 2016-17. From almost scratch, it started functioning and created policies and procedures for major research activities. The accomplishments become more noteworthy looking to the fact that the unit has single staff and that is Head of Research Unit. The role is required to do teaching of minimum of 10 hours besides other administrative works. However, there is much more to be achieved in research terms in order to meet strategic goals of the college. The summary of the year is presented in three headings below,

3.1 Major accomplishments of the year 2016/17

- The Research Unit created proper structure for its functioning by getting members from departments, after approval from ACSC.
- The research policy was finalized after detailed discussions at ACSC and CQAC. However there are some minor changes suggested that will be incorporated for approval.
- Two TRC funded research projects were approved by TRC and progress is happening on those.
- An operational plan was prepared for boosting the research activities in the college and sent for finance approval.

- Some awareness was created about research activities through regular communication on various opportunities to present/publish research papers among staff of the college.

3.2 Major challenges faced during the year 2016/17

- The biggest challenge was the lack of research outcomes due to the increase level of administrative works and teaching hours.
- The other challenge is in terms of support for creating documents needed for operations and quality purposes. The head of research unit has to manage all the reports and policies along with teaching.

3.3 Major upcoming projects /tasks for next year 2016/17

- Implement research training for staffs and students that match their research needs.
- Encouraging more staff research publications for ISI ranked journals.
- Encouraging students and staff to present research papers in national and international conferences.
- Organize national or international conference

Annexure A: Research Performance

1. **Faulty Journal Article**

Sl. No	Staff Name	Field	Period	(scientific journals name / country)	Title of the Research	Index by Scopus or Web of Science
1	Dr.Gopalakrishnan Chinnasamy	Quality Management	June 2017	Asian Journal of Empirical Research, USA. ISSN Online: 2224-4425	Factors affecting the adoption and implementation of ISO 14001/EMS in Oman: a study of SME sectors	No
2	Dr.Preeti	Quality Management	June 2017	Asian Journal of Empirical Research, USA. ISSN Online: 2224-4425	Factors affecting the adoption and implementation of ISO 14001/EMS in Oman: a study of SME sectors	No
3	Dr.Gopalakrishnan Soundararajan	Quality Management	June 2017	Asian Journal of Empirical Research, USA. ISSN Online: 2224-4425	Factors affecting the adoption and implementation of ISO 14001/EMS in Oman: a study of SME sectors	No
4	Dr.Reshmy Krishnan	Multimedia and learning	May 2017	Journal of Information and communication technology _	Adapting Bloom Taxonomy for Multimedia and HCI for enhancing Self learning and Critical thinking in Students	No
5	Mr. Gamal Abdel Nassir	Data and Network Security	May – June 2017	Springer LNDECT book series: Recent Trends in Information and Communication Technology Chapter No: 79 Chapter DOI:10.1007/978-3-319-59427-9_79	SBRT: API Signature Behaviour Based Representation Technique for Improving Metamorphic Malware Detection	No
6		Information Security – Malware Detection Techniques	May – July 2017	American Journal of Applied Sciences- USA	Survey on Malware Detection Techniques	No

9	Ms.Hameetha Begum	Cloud Data Security	March-April 2017	International Journal of Computer Science Trends and Technology (IJCST), India	Integer Factorization in RSA Encryption: Challenge for Cloud Attackers	No
10	T.Sheeba	Computer Science	May 2016	International Journal of Engineering Research & Technology, Volume 5, Issue 05, May - 2016	Extracting and updating of learner interest using wordnet in an E-Learning System	No
11			June 2016	International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-6 Issue-1, June 2016	An Approach to Construct Learner Profile Using Ontology	No
12	Mr. Arulsivanantham.P	Civil Engineering	September 2017	International Journal of ChemTech Research	A Review on Self Compacting Concrete	No
13	Najah Al Siyabi	Education (Classroom Pedagogy)	March 2016	International Journal of Psychology & Behavior Analysis IJPBA, ISSN: 2455-3867	Job autonomy and Job Satisfaction of English Instructors in the language Centers of some Private Colleges in Muscat, Oman	No
14	Mercy Rani	Education	January 2017	International Journal of Linguistics and Literature (IJLL) ISSN(P): 2319-3956; ISSN(E): 2319-3964	Task-based Language Teaching in Promoting the Target Language Culture through Idioms and Proverbs, A Case Study	No
15	Hind Talib AL-saadi and Najah Salim AL-siyabi	Education	*September, 2017*	International Journal of Development Research	THE PERCEIVED IMPACT OF WORKPLACE CONDITIONS AND LEADERSHIP IN PRIVATE COLLEGES IN MUSCAT ON TEACHERS' PROFESSIONAL DEVELOPMENT	No
16	Dr. Ruksana Banu. A	Management	December 2016	Amity Business Journal (Vol 1, No. 1)	The Conceptual Framework of Work-Life Balance Policies	No

17	Dr. Araby Madbouly	Business - OB	March,2017	Journal of Economics and Behavioral Studies	Generation Y-Turnover: A Complementary Fit Perspective	No
18	Abdelbaset Queiri	Business - OB	March,2017	Journal of Economics and Behavioural Studies	Generation Y-Turnover: A Complementary Fit Perspective	No
19	Abdelbaset Queiri	OB using IT advancement	2016 – 2017	Jurnal Teknologi	Technology Transfer model for the information and communication industry	No
20	Abdelbaset Queiri	OB	2016 – 2017	Journal of Sustainable Development	Factors Affecting Generation Y Employees' Intention to Quit in Malaysian's Business Process Outsourcing Sector	No
21	Abdelbaset Queiri	Logic gates and consumer behavior`	2016 – 2017	Global Journal of Emerging Trends in e-business, Marketing and Consumer Psychology	The Impact of Black Swan on Consumer Behaviour: A logarithmic Approach	No
22	Dr. Gopalakrishnan Chinnasamy	Marketing	September 2016	Academicia, South Asian Academic Research Journals (ISSN:2249-7137)	A STUDY ON BUYING BEHAVIOUR AND DECISION MAKING OF CONSUMERS TOWARDS PURCHASING CHOICE ON FOOTWEAR WITH RELEVANT TO COIMBATORE CITY	No

2. **Faculty Book Publication**

Sl. No	Staff Name	Title of paper	Name of the book	Publisher	Data
1	Dr. Hussain Alhejji	Human Resources Development in Public, Nonprofit and International Non-governmental Organisations	Handbook of International HRD: Context, Processes and People	Edward Elgar, UK	2017
2	Dr.Gopalakrishnan Soundararajan	Buying behavior of green products	-	Lambert academic publishing , ISBN 978-3-659-88113-8	2017

3. Conference /Workshops

SL NO	Staff Name	Activity	Organizer	Implementation period	Title of the Research
1.	Dr. Hussain Alhejji	International Conference	University Forum for Human Resource Development. Lisbon, Portugal	7-9 June 2017,	Approach to diversity in Oman: implication for HRD
2.	Dr.Reshmy Krishnan	International Conference	Seventh International Conference on Advances in computing, Electrical and Electronics Technology-CEET 2017,,July 1-2,2017, Kuala Lumpur, Malyasia.	July 1-2	Integrated Role of XML and Java in Historical Data Processing
		TRC Annual Forum 2016 (Workshop)	Grand Millennium Muscat Hotel, Muscat	05th October 2016	To Enhance TRC efforts in supporting research and innovation in the sultanate
3.	Mr.Gamal Abdul Nassi.r	International Conference	Faculty of Computing , UTM , (ISSIRG) in UTM and the (YSRG) - Malaysia	April 23rd to 24th 2017	SBRT: API Signature Behaviour Based Representation Technique for Improving Metamorphic Malware Detection
4.	Dr.Sarachandaran Nair	Workshop	InterContinental Muscat Hotel, Muscat	27th October, 2016	Data Security
5.	Dr.Elrasheed Ismail Sultan	Workshop	InterContinental Muscat Hotel, Muscat	27th October, 2016	Data Security
6.	Dr.Shermina	Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Mobile Application for Hostel Booking System
7.	Ms.Praseeda Manoj	Conference	Arab Open University - Oman	26th May 2017	A survey analysis of supervised and unsupervised learning methods in multidimensional data analysis
8.	Ms.Hameetha Begum	Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Student Self Service System
		Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Contractor Management System
9.	Ms.Sheeba	International Conference	International Conference on Brain Inspired Cognitive System, Advances in Brain Inspired Cognitive Systems, BICS 2016- Beijing, China	November 2016	An Ontological Framework of Semantic Learner Profile in an E-Learning System
		Conference	Middle East College (IEEE Middle East College) Student	15th May 2017	Student Self Service System

No					
			Branch		
10.	Ms.Milli	Workshop	Arab Open University	15th December 2016	Unleashing your Research Potential
11.	Ms. Ayisha Powmya	International Conference	International Conference of Global Network for Innovative Technology and AWAM International Conference in Civil Engineering (IGNITE-AICCE'17), University Science Malaysia, Penang, Malaysia.	8-10 August 2017	Contractor firm strategies in delivering green project: A review
12.	Mr. Arulsivanantham.P	International Conference	2nd International Conference on Sustainable Practices in Civil Engineering (SPICE 2017)	10-11 April 2017	A Review on Self Compacting Concrete
13	Nuzhath Fatima Piyali Dey Zehra Sultan	Symposium	Middle East College	February 2017	Exploring EFL Classroom activities that hinge on experiential approach to language learning
14	Dr. Araby Madbouly	Proceeding Paper & presentation	College of Applied Sciences, Salalah, Sultanate of Oman	26 & 27 April, 2017	Assessing the entrepreneurship ecosystem of Sultanate of Oman

4. **Doctoral Dissertations submitted by the academic staff in the academic year 2016/2017**

No	Master dissertations	Doctoral dissertation
1	_	**Name:** Janaki Sivakumar **Year of completion :** May 2017 **Name of the university :** PRIST University, Thanjavur **Title:** "Soft Computing Models for Gender Classification Using Lateral Cephalograms
2	-	**Name:** Preeti Shrivastava **Year of completion:** July 2016 **Name of the university:** Banasthali University, India **Title:** A study on Acceptance, Perception and Use of Online Social Networking by College students in Oman

5. **Other academic activities**

Name	Activity	Journals/institutions
Dr. Hussain Alhejji	Journal Refereeing Activities	Personnel Review and Human Resources Development Review
Dr.Reshmy Krishnan	Journal Refereeing Activities	Different International Journals (eg. Science Direct publication, International Arab journal of Information Technology)
Dr. Araby Madbouly	PhD thesis reviewer	Anna University

6. **Student conference papers**

SL NO	Student Name	Activity	Organizer	Implementation period	Title of the project/research
1.	Anfaal Al Maamari	AOU Oman Research Conference (AOUSRC-2017) 'Making a Difference'	Arab Open University – Muscat, Sultanate of OMAN	24th – 25th May 2017	Accessibility of Smart Phone Applications by Visually Impaired Users- an Evaluation
2.	Afrah Mohammed Al Hanzali	AOU Oman Research Conference (AOUSRC-2017). 'Making a Difference'	Arab Open University – Muscat, Sultanate of OMAN	24th – 25th May 2017	A survey analysis of supervised and unsupervised learning methods in multidimensional data analysis
3.	Mr. Mohammed Hamed Salim Al-Hasni	AOU Oman Research Conference (AOUSRC-2017) 'Making a Difference'	Arab Open University – Muscat, Sultanate of OMAN	24th – 25th May 2017	Online Unit And Assessor Evaluation System
4.	Ibtisam Al Harthy	The 3rd Middle East College Student Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Student Self Service System
5.	Hajir AL-Harthy	The 3rd Middle East College Student Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Contractor Management System
6.	Hala Salim Ahmed Said Al Ghafri	The 3rd Middle East College Student Conference	Middle East College (IEEE Middle EastCollege) Student Branch	15th May 2017	Mobile Application for Hostel Booking System
7	Majid Fahad Al Said (13271)	Student Research Conference -AOUSRC 2017	Arab Open University	24 and 25th May	Understanding the Dynamics of Entrepreneurship in Economic Development: A Brief Review

Annexure B: Research Training Workshops

Sl. No	Workshop title	Resource person	Venue	Date
1	How to identify high Impact Factor journals	Dr. Hussain Alhejji	Muscat college	05-Jan-2017
2	Research Methodology I	Dr. Vinay Gupta	The Language Centre, Muscat College	12-Jan-16
3	Research Methodology I	Dr. Vinay Gupta	The Language Centre, Muscat College	13-Jan-16
4	Moodle	Ms. Valeria Thomson	The Language Centre, Muscat College	14-Jan-16
5	Writing Research Paper and Online Data Collection'	Dr.Gopalakrishnan Soundararajan	Muscat college	02-February-2017
6	Building a professional identity - From research to impact	Dr. Hussain Alhejji	Muscat college	20-April-2017
7	How to submit a funded project proposal- FURAP projects of TRC	Dr. Vinay Gupta	Muscat college	04-May-2017