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DO ACADEMICS IN FACULTY OF ENGINEERING TECHNOLOGY (FET) PRODUCE LESS PUBLICATIONS? WHAT FET ACADEMICS SAY

K. S. Weerasekera*

Department of Civil Engineering, Open University of Sri Lanka

INTRODUCTION

Faculty of Engineering Technology (FET) at the Open University of Sri Lanka (OUSL) involves in teaching engineering through Open and Distance Learning (ODL) over the last 25 years. Although FET has produced around 400 engineering graduates in Civil, Computer, Electrical, Electronic, Communication, Mechatronics and Mechanical Engineering during its operation, the graduate pass-out rate has not been as successful as conventional engineering faculties in the country. OUSL undertook a bold initiative of starting an ODL engineering degree in early 1980's at a time when ODL was not much known or taken seriously. Even with current technological advancements in ODL it's yet to see universities offering a variety of engineering degrees as OUSL do through distance mode.

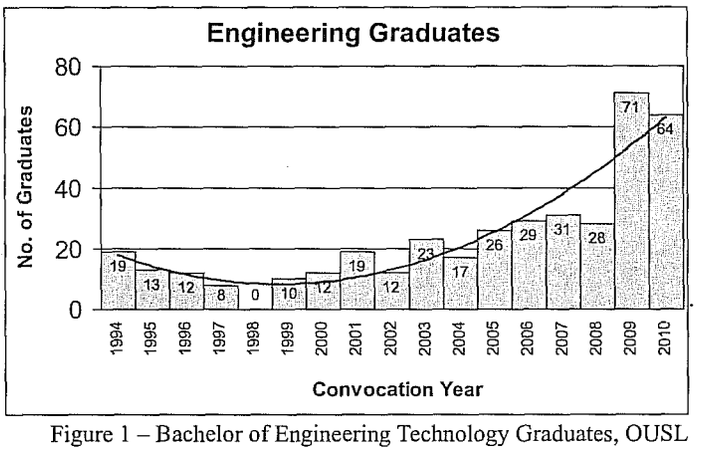

Figure 1 – Bachelor of Engineering Technology Graduates, OUSL

RESEARCH AND DEVELOPMENT AT OUSL

It's seen those universities which teach through distance mode conduct less discipline based research compared to conventional universities (Proceedings of AAOU). This can be seen in all applied science based disciplines, especially when it comes to engineering. Here at OUSL regarding research publications, number of conference papers and journal articles produced by both staff and students of the FET is less compared to other four faculties of OUSL. During the period 2005 to 2010, OUSL has conducted 5 research conferences with the participation of all 4 faculties where academics and students presented their research outcomes. The number of presentations done by staff members and students of different faculties are summarised in Table1.

* All correspondence should be addressed to Prof. K. S. Weerasekera, Department of Civil Engineering, Open University of Sri Lanka (email: kolitaw@yahoo.com)

	Faculty of Engineering Technology			Faculty of Natural Sciences	Faculty of Humanities & Social Sciences	Faculty of Education	Outside OUSL	Total no. of Papers
	Engi	Agri	Text					
25th Anniversary Conference 2005	00	00	02	06	07	08	--	23
Percentage (%)	0 %	0 %	8.7 %	26.1 %	30.4 %	34.8 %	--	100 %
Academic Sessions 2007	00	05	01	16	09	02	--	33
Percentage (%)	0 %	15 %	3.1 %	48.5 %	27.3 %	6.1 %	--	100 %
Academic Sessions 2008	02	08	03	12	10	05	--	40
Percentage (%)	5 %	20%	7.5 %	30 %	25 %	12.5 %	--	100 %
Academic Sessions 2009	07	08	06	18	12	07	--	58
Percentage (%)	12 %	14 %	10.2 %	31 %	20.7 %	12.1 %	--	100 %
30th Anniversary Conference 2010	03	00	00	04	05	10	17	39
Percentage (%)	7.7%	0 %	0 %	10.3 %	12.8 %	25.6 %	43.6 %	100 %
Total	**12** 6.2%	**21** 11 %	**12** 6.2 %	**56** 29 %	**43** 22.2 %	**32** 16.6 %	**17** 8.8 %	**193** 100 %

Table 1 – Number of Research Papers by Faculty, at Academic Sessions at OUSL

(Discipline and ODL based)

Table 2 indicates the Biannual Research Journals published by the different faculties of the university. Although these are supposed to be published biannually, their printing is governed by the number of submissions by the staff members.

Name of Journal	Faculty	Number of Issues during last 5 years
1. OUR – Engineering Technology	Faculty of Engineering Technology	Although this is a biannual journal no journals were published between 2005 & 2011 due to lack of submissions.
2. VISTAS – Journal of Humanities, Social Sciences and Education	Faculty of Humanities and Social Sciences	Biannual journal, several issues were published between 2005 & 2011.
3. ADEEKSHA - Journal of Education	Faculty of Education	Biannual journal, several issues were published between 2005 & 2011
4. OUSL Journal	All Faculties	Biannual journal, several issues were published between 2005 & 2011.

Table 2 – Journals by Faculties of OUSL and Number of Issues Published

It could be seen that the OUR – Engineering Technology Journal was not published during the period 2005 to 2011 due to lack of papers from the FET staff members. This is another indication of lack of research based articles by the FET staff members compared to other faculties. Table 3 is a summary of conference papers and journal articles produced by OUSL staff based on faculties over the last 5 year period. This data is extracted from the OUSL Annual Reports from 2005 to 2009.

Faculty	Type of Publication	Year					Total
		2005	2006	2007	2008	2009	
Education	International Conference	09	11	06	06	05	37
	Local Conference	08	10	16	08	11	53
	Journal Articles	06	02	05	02	02	17
Engineering	International Conference	05	03	04	02	02	16
	Local Conference	08	06	10	12	11	47
	Journal Articles	03	02	05	07	06	23
HSS	International Conference	02	05	14	03	00	24
	Local Conference	07	28	17	26	26	104
	Journal Articles	05	07	03	03	09	27
Nat. Science	International Conference	08	03	06	12	06	35
	Local Conference	14	15	38	38	28	133
	Journal Articles	12	05	03	12	05	37

(Source: OUSL Annual Reports 2005 to 2009) Table 3 – OUSL Staff Publications 2005 to 2009

METHODOLOGY

A questionnaire survey was conducted among FET academics in order to take a snapshot of their research profile in 2010, and also to get their views on different aspects of research and their perspectives. FET has a permanent lecturing staff of 54 including 6 professors, 40 senior lecturers and 8 lecturers. The questionnaire was given to all the 54 staff members and 44 responded to the questionnaire (i.e., 3 professors, 34 senior lecturers and 7 lecturers), which is a quite high rate of return of 81.5%.

ANALYSIS & RESULTS

The responses obtained from the 44 respondents are as follows:

1 Conference presentations:

In year 2010, a total of 7 FET academics were involved in presenting papers (individually or jointly). Out of that, 5 presented locally, and 2 presented overseas.

2. Journal Articles:

In year 2010 a total of 5 FET academics (individually or jointly) contributed to Journal articles. Out of that, 3 published in local journals and 2 published in International Journals.

3. Last paper published either conference proceedings or journal articles:

Another question posed to the staff members was, asking them to state the year when their work was last published either in a journal or presented in a conference. The answers obtained are summarised in Table 4 below.

The year of last publication or presentation	Number of staff members
2010	11
2009	08
2008	02
2007	04
2006	01
2005	01
2000 to 2005	04
Before 2000	04
No presentations or publications	09

Table 4 – Last Conference Presentation or Publication

Out of 44 respondents 09 (i.e. 20.5 %) members admitted that they had never published a paper or neither had presented a paper in a conference.

4. Research grants

There was one research grant obtained by a faculty member in 2010.

5. Self Satisfaction

Except 04 staff members all the other 40 members (i.e., 91%) were unhappy with the extent of research they conduct currently. They felt they should do more research as academics.

6. Reasons for not being able to perform research at a reasonable level

Figure 2 shows the percentage of staff that indicated different reasons for poor record of research. The main reasons given by the majority of staff members were lack of time for research due to dealing with large number of students (25.5%), lack of research environment (19.8%), marking of continuous assessment components (i.e. assignments, CATs, tutorials, exam papers) (18.9%).

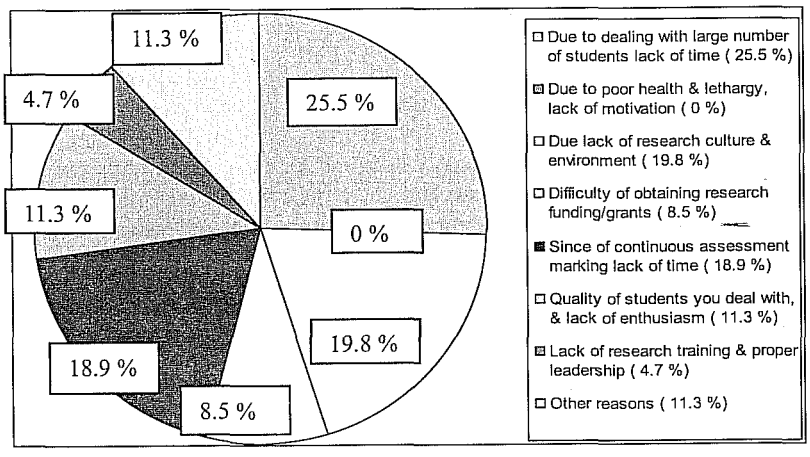

Figure 2 – Reasons given for not being able to perform sufficient research

7. Reasons for comparative poor performance by engineering faculty staff members

Figure 3 shows reasons given by FET members for their low record of research compared to other faculties. 33.8 % members stated that conducting engineering related research is more difficult, 33.8 % members said that they are more conscious of quality of the paper and not merely the number of papers they produce, and 27.9 % thought that producing papers in some other disciplines is comparatively easy hence any comparison is unfair.

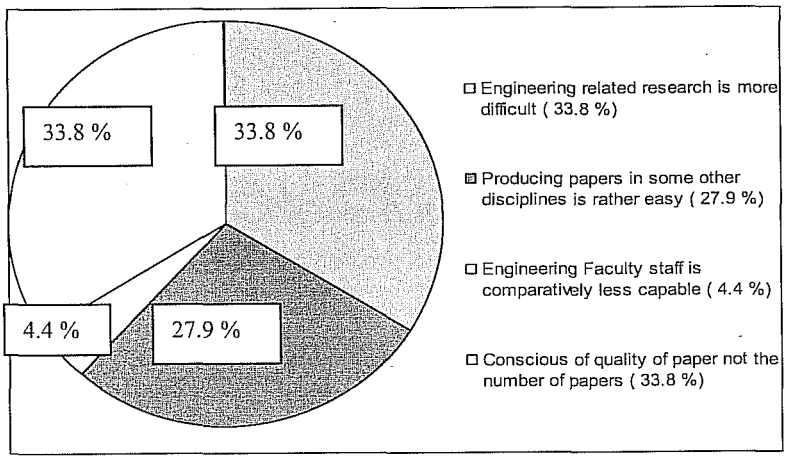

Figure 3 – Reasons given for comparative poor research performance

CONCLUSIONS

Through this study it was able to observe that research papers presented at conferences and journal articles produced by the FET staff is visibly less compared to the other faculties in the university. Natural Sciences top the list, then come Humanities & Social Sciences followed by Education and last come Engineering. The reasons for this low engineering related research output as according to FET staff is mainly due to lack of time among staff members to devote for research is; (i) due to handling of large number of students, (ii) due to continuous assessment process, (iii) due to staff involvement in marketing the programmes, (iv) having to counsel large number of students & registering them, (v) activities in regional and study centres, (vi) due to lack of research culture because of ODL, (vii) difficulty of conducting engineering research which involves considerable amount of inputs in field work, laboratory work, data analysis, calibration and validation processes etc. All these factors when combine; contribute for the low level of research output from the Faculty of Engineering & Technology. Above conclusions are based on responses given by 44 out of total of 54 FET staff members (i.e. 81.5%).

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