

Implementing Quality Assurance in Universities/ HEIs through Ensuring and Promoting Stakeholders' Trust

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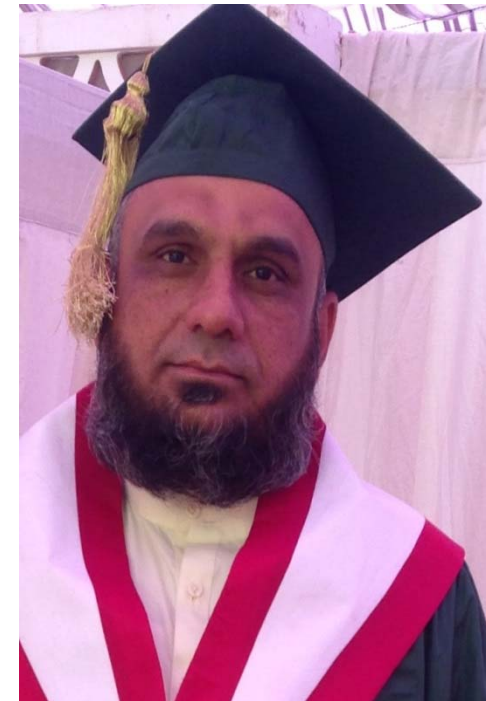
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Quality Enhancement Cell (QEC)

**NED University of Engineering & Technology, Karachi-
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Author's Introduction

- **Assistant Professor, Department of Civil Engineering, NED University of Engineering & Technology, Karachi-Pakistan**
- **PhD Supervisor Approved by Higher Education Commission (HEC) Pakistan**
- **Principal Investigator, HEC Research Project 'Use of FRPs for Strengthening and Repair of Steel Bridge Members'**
- **Co-Principal Investigator, HEC Research Project 'Development of Bio Concrete from Micro Organisms'**
- **Research Interests**
 - **Improvement in Quality Assurance Process in Universities/ HEIs**
 - **Internal & External Quality Auditing**
 - **Evaluation of Academic Programs**
 - **Novel Techniques in Cement and Bio Concretes**
 - **Strengthening and Repair of Steel Bridges**



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- **Ag. Director, Quality Enhancement Cell (QEC), NED University of Engineering & Technology, Karachi-Pakistan**
- **Ag. Quality Management Representative (QMR)**
- **International Register for Certified Auditors (IRCA) Certified Lead Auditor**
- **Certified Procurement Professional approved by Sindh Public Procurement Authority (SPPRA) Pakistan**
- **Trainer/ Resource Persons**
 - **Quality Assurance in Higher Education**
 - **ISO 9001:2015 Standards**
 - **PEC Out-Come Based Education (OBE) System**
 - **HEC Self-Assessment (SA) Mechanisms**
 - **Institutional Performance Evaluation (IPE)**
 - **Public Procurement Processes**
- **Technical Expert for Civil Engineering Works, Anti-Corruption Department, Govt. of Sindh**



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- **Founded in 1921 as Engineering College**
- **Upgraded as a University in March 1977**
- **Certified for Conforming to International ISO 9001:2015 Standards**
- **Member of**
 - **International Network of Quality Assurance Agencies in Higher Education (INQAAHE)**
 - **Asia Pacific Quality Network (APQN)**
 - **Pakistan Network of Quality Assurance in Higher Education (PNQAHE)**
- **NED University offers**
 - **29 Undergraduate programs**
 - **44 Masters degree programs**
 - **17 PhD programs**



Implementing Quality Assurance in Universities/ HEIs through Ensuring and Promoting Stakeholders' Trust

- Introduction
- Problem Statement
- Methodology
- Results and Discussions
- Conclusion
- Acknowledgements

Challenge for Researchers!

What is Quality in Higher Education (HE)?

Definitions and interpretations depend upon the views of four major groups of stakeholders

- a) Funding bodies, community, taxpayers as providers**
- b) Students as users of products**
- c) Employers as users of outputs of the products**
- d) Academics and Administrators as employees of the HE Sector**

Challenge for Researchers!

What is Quality in Higher Education (HE)?

- **Students associate quality with the quality of the institution, programs and courses**
- **Employers' focus for quality is the final product in terms of qualified employees**

(Schindler et al, 2015)

Challenge for Researchers!

What is Quality in Higher Education (HE)?

Two strategies for defining the quality in higher education

- a) To classify the quality to become purposeful, exceptional, transformative and accountable
- b) To identify through specific indicators such as students' performance, institutional support, customer satisfaction and feedback, leadership skills, engagement and trust building of people and process-based approach

(International Organization for Standardization –ISO, 2015)

Quality in HE in Pakistan!

- By the start of this century, the Quality in Higher Education sector of Pakistan started attracting the attention of the Higher Education Commission (HEC) and Universities/HEIs
 - At the national level, the HEC-Pakistan established its **Quality Assurance Agency (QAA)** in 2005
 - The QAA introduced/ implemented QA mechanisms through
 - Internal Self-Assessment of Academic Programs
 - External Program Reviews/ Accrediations
 - Institutional Performance Evaluation (IPE)
 - Guidelines to start new Master's and PhD programs
- (Batool & Qureshi, 2005)

Key Challenge of Quality in Higher Education !

**How to Implement
Quality Assurance in Universities/HEIs
through Ensuring and Promoting
Stakeholders' Trust ???**

Methodology

- **NED University of Engineering and Technology, Karachi has been certified by the Lloyd's Register Quality Assurance (LRQA) for conforming to requirements of the ISO 9001:2015 Standards for developing and implementing a Quality Management System (QMS)**
- **The university has developed a Quality System Procedure (QSP) for Internal Quality Auditing (IQA) as clause 5.2 of the ISO 9001:2015 Standards**

(NED/QSP 12/05, 2017)

Methodology

- In the present study, the Internal Quality Auditing (IQA) System in NED University of Engineering and Technology is used to implement, improve and evaluate the QA practices and procedures through involvement of stakeholders
- The selected stakeholders (academics and administrators) i.e. auditees include
 - Deans of Faculties
 - Chairpersons of Academic Departments
 - Heads of Non-Academic Departments
- The Internal Quality Auditing (IQA) is a University-wide activity carried out twice a year and is applicable to academic and non-academic functions of all departments included to the QMS

Methodology

- **The IQA activity starts with the audit plan mentioning the audit teams, details of audits, days and timings of the audit**
- **In order to ensure transparency and fairness as well as to avoid the conflict of interest, the auditors are not assigned to audit departments they belong to**
- **The plan is prepared by the QEC, approved by the University Leadership and is shared with the auditees at least one week prior to the proposed audit**
- **The Quality Enhancement Cell (QEC) is responsible for planning, scheduling, execution and reporting on quality audit**

Methodology

- **The audit is carried out by teams of the Trained Internal Auditors based on their experience and professional skills. The auditors are generally faculty members and officers from academic and non-academic departments and have undergone ISO certified trainings**
- **The results of 32nd Internal Quality Audit (IQA) conducted in April 2018 have been used as the basis for initiating and implementing the corrective and mitigation actions**
- **The outcomes of the corrective and mitigation actions are cross-checked with the results of the 33rd IQA held subsequently in October 2018 in order to see the audit effectiveness in terms of improvements**

Audit Plan of 32nd IQA

Audit Plan of 32 nd IQA held in April 2018		
Team 01: Dr. Asif Ahmed Shaikh, Dr. Faraz Akbar, Ms. Saima Kashif (24/04/2018)		
Examinations Department	Medical Department	Urban & Infrastructure Engg
Dean (CPL) & Dean (ECE)	Physics / Chemistry	Mathematics
Team 02: Dr. Farooq Hassan, Dr. M. Ali Memon, Ms. Nazia Sami (24/04/2018)		
NED Academy	Civil Engineering	Earthquake Engineering
Materials Engineering	Chemical Engineering	Directorate of Planning & Project
Team 03: Dr. Muhammad Wasif, Syed Kabeer Ehsan (24/04/2018)		
Dean (CPE)/ (MME)/ (ISH)	Audit Department	Petroleum Engineering
Directorate of Finance	Comp. Sc. & Software Engg	Directorate of Services
Team 04: Dr. M. Aslam Bhutto, Dr. Rashid A Khan, Ms. Sidra Masood (25/04/2018)		
Student Affairs Department	Mechanical Engineering	Information Technology
Textile Engineering	Electronic Engineering	Computer & Info-Sys Engg
Team 05: Dr. Riaz Uddin, Mr. M. Nasir, Syed Imran Ali (25/04/2018)		
Dean (AMS)	Biomedical Engineering	Food Engineering
Architecture & Planning	Directorate of Ind. Liaison	ORIC
Team 06: Dr. Saira Faisal, Mr. Haseeb Ansari, Engr. Danish Majeed (25/04/2018)		
Procurement Cell	Electrical Engineering	Polymer & Petrochemical Engg
Quality Management Cell	Automotive & Marine Engg	Industrial & Manuf. Engg
Team 07: Syed Basit Ali, Dr. Zahoorul Hussain, Dr. Sana Muqem (25/04/2018)		
Registrar Office	Environmental Engineering	Metallurgical Engineering
Engr. Abul Kalam Library	Vice Chancellor's Secretariat	Humanities

CMAR Specimen

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY



F/QSP14/01/03

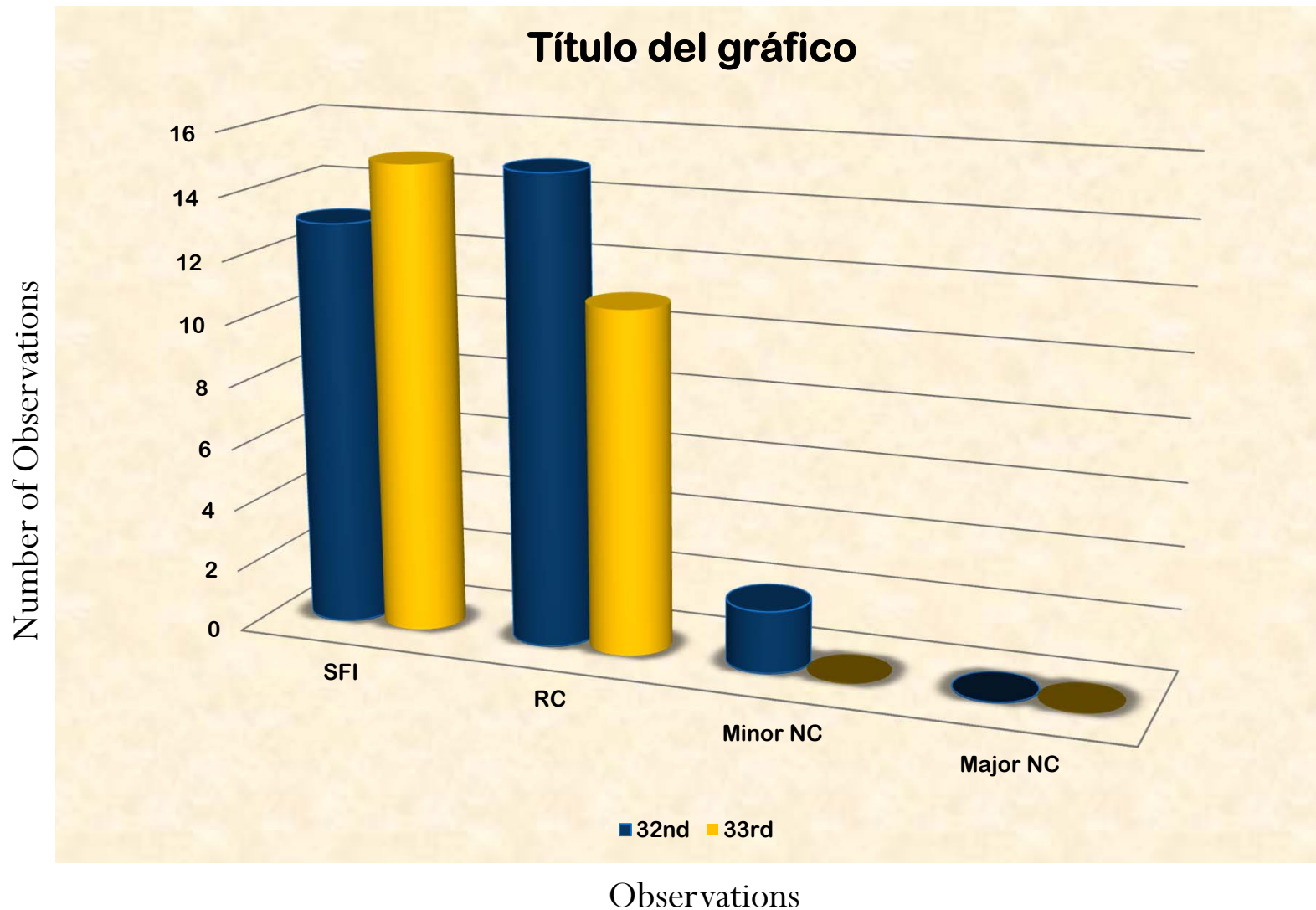
CORRECTIVE / RISK MITIGATION ACTION REQUEST

CMAR #: 06-32	Date: 25-04-2018	Internal Audit #: IQA 32/18
Department Audited: Electronic Engineering	Name of Auditee: Prof. Dr. S.M. Usman Ali Shah	Name of Auditor: Dr. MA Bhutto
NON-CONFORMANCE: Some 3 CH courses; eg. EL-306; have course plans based on 45 lectures while some others, eg. EE-121 based on 48 lectures. This needs uniformity and corrections.		GRADE: "RC" REF. CLAUSE (S):
Signed By MR/ Director QEC: <i>[Signature]</i> 25/4/18		
REASON AND CORRECTIVE / RISK MITIGATING ACTION DECIDED: (To be filled by the Auditee)		
Reason: <i>Some 3 credit hour courses have course plans based on 45 lectures and some others were based on 48 lectures.</i>		Name of Person Responsible for Implementation: <i>CA and AC</i> Target Date: <i>May 03, 2018</i>
Corrective / Risk Mitigating Action Decided: <i>course plans were made uniform based on 45 lectures.</i>		Signed By HOD Concerned: <i>[Signature]</i> 3/5/2018
CMAR FOLLOW UP:		
STATUS OF IMPLEMENTATION / EFFECTIVENESS:		
Date of Follow Up: <i>03/5/18</i>		
Implementation Effectively Completed: <input checked="" type="checkbox"/> Implementation Completed but not Effective: <input type="checkbox"/>		
Implementation not Completed, more time is needed: <input type="checkbox"/>		
Remarks (If not implemented):		
CMAR Closed: <input checked="" type="checkbox"/> CMAR Not Closed, Date Extended: <input type="checkbox"/> Next Target Date :		
New CMAR Issued: <input type="checkbox"/> New CMAR #:		
Signed By M.R./ Director QEC/ Auditor: <i>[Signature]</i> 3/5/18		Signed By HOD Concerned: <i>[Signature]</i> 3/5/18

Result Summary of 32nd & 33rd IQA

Observation/ Non-Conformity			32 nd IQA-April 2018		33 rd IQA-October 2018	
Name	Abbreviation	Severity Score	No. of Obs./NCs	Severity Score	No. of Obs./NCs	Severity Score
Scope for Improvement	SFI	00	13	00	15	00
Requires Correction	RC	01	15	15	11	11
Minor Non-Conformity	Minor NC	02	02	04	00	00
Major Non-Conformity	Major NC	04	00	00	00	00
			All followed & closed	Total = 19	All being followed	Total = 11

Graphical Presentation Of 32nd & 33rd IQA



- **All the observations and non-conformities of the 32nd Internal Quality Audit (IQA) stand closed after carrying out and verifying the required corrective and mitigation actions before conduct of the 33rd IQA in October 2018**
- **The involvement of stakeholders i.e. auditees during the whole audit process and their close coordination with the QEC and auditors not only helped in developing, promoting and ensuring their trust, but also in deciding, initiating and implementing necessary actions over the audit observations and non-conformities**
- **The number of non-conformities (i.e. RCs and Major & Minor NCs) as well as the severity scores in the 33rd IQA has reduced as compared to those of the 32nd IQA (19 to 11)**

Discussion of Results

- **The trust of auditees developed and promoted during course of the 32nd IQA appeared to be a major source of the improvements in the QA practices and can particularly be assessed from the results of the 33rd IQA**
- **No case of the conflict of interest was observed after following the policy of not including the audit team members in the audit of their own academic and non-academic departments; this also helped in ensuring trust of the stakeholders i.e. auditees in the audit exercise**

Conclusions

- **The study presents an audit exercise carried out in NED University of Engineering and Technology using the Quality Auditing System to be as effective tool to implement and improve the QA practices**
- **In the audit exercise, involvement of stakeholders i.e. auditees has been used as the basis for detecting, initiating and implementing the corrective and mitigation actions**

Conclusions

- **The effectiveness of these actions in terms of improvements is verified through the results of the subsequent audit i.e. 33rd IQA held subsequently in October 2018**
- **The involvement of stakeholders and avoiding the conflict of interest in the whole audit process helped in developing and promoting their trust as well as resulted in achieving and ensuring the quality assurance (QA) of the academic and support functions**

Acknowledgments

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Thank you.