

الهيئة السعودية للمهندسين
SAUDI COUNCIL OF ENGINEERS



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Research Abstract

Setting up professional standards for engineering practices is considered as a national strategic goal that all those who work in engineering practice and its beneficiaries are striving to achieve. Since centuries, many international organizations had endeavoured, ahead of us, to establish these standards and achieved their goals through the professional system that paved the way to industrial and civilization revolutions in their countries. Every five-year development plans of the Kingdom emphasized the necessity of development of professional practicing standards and performance benchmarks.

Based on the role of Saudi Council of Engineers, it has framed the objectives for developing the national systematic scheme for professional qualification of engineers.

These objectives are defined to fulfill the aims of developing the practice of engineering profession in the Kingdom through comprehending and assessing the status quo and surveying the local and international expertise that define the frame for the national systematic scheme for qualification along with delineating the mechanisms and policies that ensure its proper implementation. This national project was introduced through the research projects of KACST and was aided and supported by Saudi Aramco.

The research objectives were carried out through the mechanisms which ensured participation of all engineers and engineering education sectors including graduating students, university faculties, engineering supervisors, and decision makers. They contributed in apprehending the status quo of professional practicing level in the Kingdom and evaluated the situation through the survey. It was possible to develop a national methodology for qualification through analysis of the survey results and the collected data and the local and international experiences in the field of qualification that we perused. This proposed methodology also had underwent discussions with a group of engineers in workshops and brainstorming sessions with the help of a group of consultants in qualification and human resources, surveying, categorization, engineering education, and some experts from abroad. This helped in formation of the national framework for engineering qualification method in the Kingdom.

This research helped to define four professional levels as: Engineer, Associate Engineer, Professional Engineer, and Consultant Engineer; with describing the privileges and responsibilities, making the organizational structure for examination board for different levels for each engineering disciplines in addition to setting up appropriate mechanisms to deal with the status-quo, and a transitional plan for implementation of the methodology. These mechanisms are tailored to allow the involvement of influential bodies in engineering profession.

The professional qualification for engineers will definitely bring many benefits such as professional returns to engineers by providing the flexibility in expertise transfer between different sectors, protecting the profession and upbringing its ethics, implementing gradualism in responsibilities in accordance with particular principles and methodology by creating a professional relation between the engineers based on their levels and responsibilities, building personal skills and implementing the best practices and efficacy in facing the challenges, and creating competitiveness and providing suitable atmosphere for training.

The qualification will produce professional profits for the job sectors through providing added values to them besides their partaking in the progress and development of the community, and betterment of the nature of service projects that will be taking place in the Kingdom in future.

Building a systematic qualification scheme for engineers as described necessitates sincere collaboration of efforts in national level to take part in executing and guiding the scheme. Especially the professional engineering issue and its development is of national interests that concern all the public and private educational, engineering, and industrial sectors; it demands creative and serious contributions in enhancing the performance level and skills, building the engineer's personality, encouraging and motivating the spirit of innovation and creativity, and building an integrated system for professional licensure and etiquettes. This will definitely pilot to creation of a professional employment cadre, and will uplift and dignify the image of the engineering profession.

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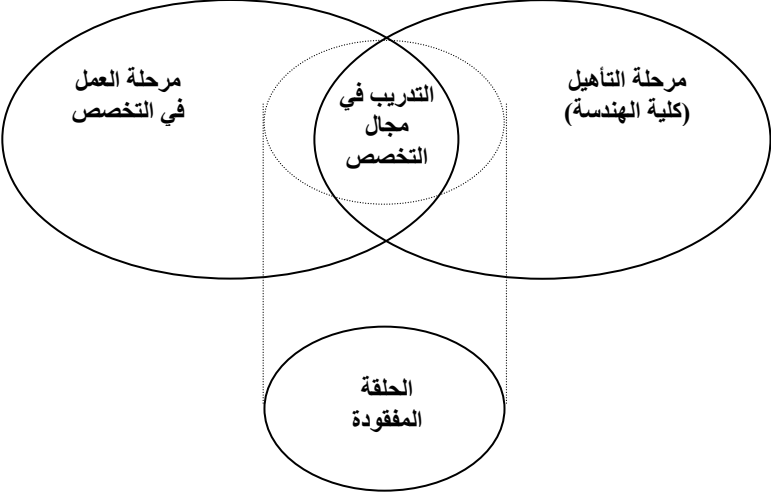
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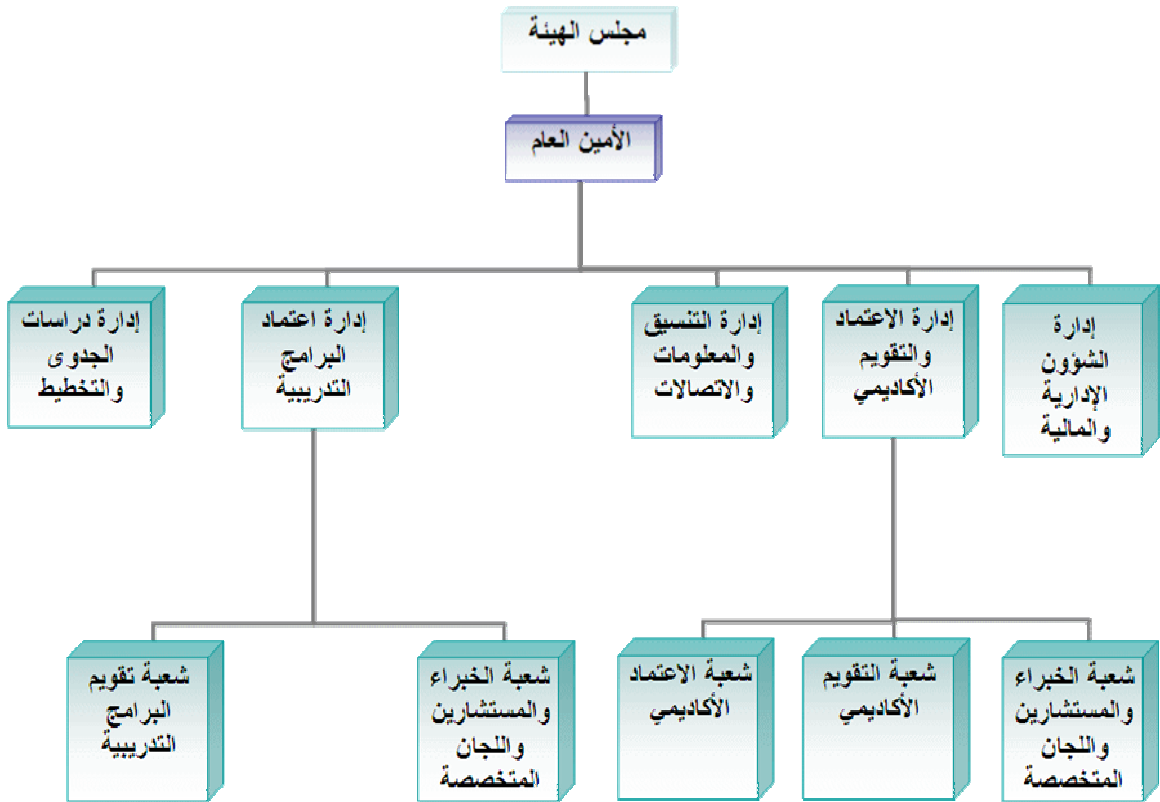
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(Engineering Council, ECUK)

(The Board For Engineers Regulation, BER)

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Engineering profession, BEP)

(National Register)

(Initial Profession

Development, IPD)

(Hamilton,2000)

(Bachelor Degree)

(Honours)

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(Pass Degree)

(Technical Courses)

(Sub-degree level)

(Standards and Routes to

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Registration)

(Chartered Engineers, CEng)

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(Engineering Technician, Eng. Tech)

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(Accredited 3-year Incorporated Engineer

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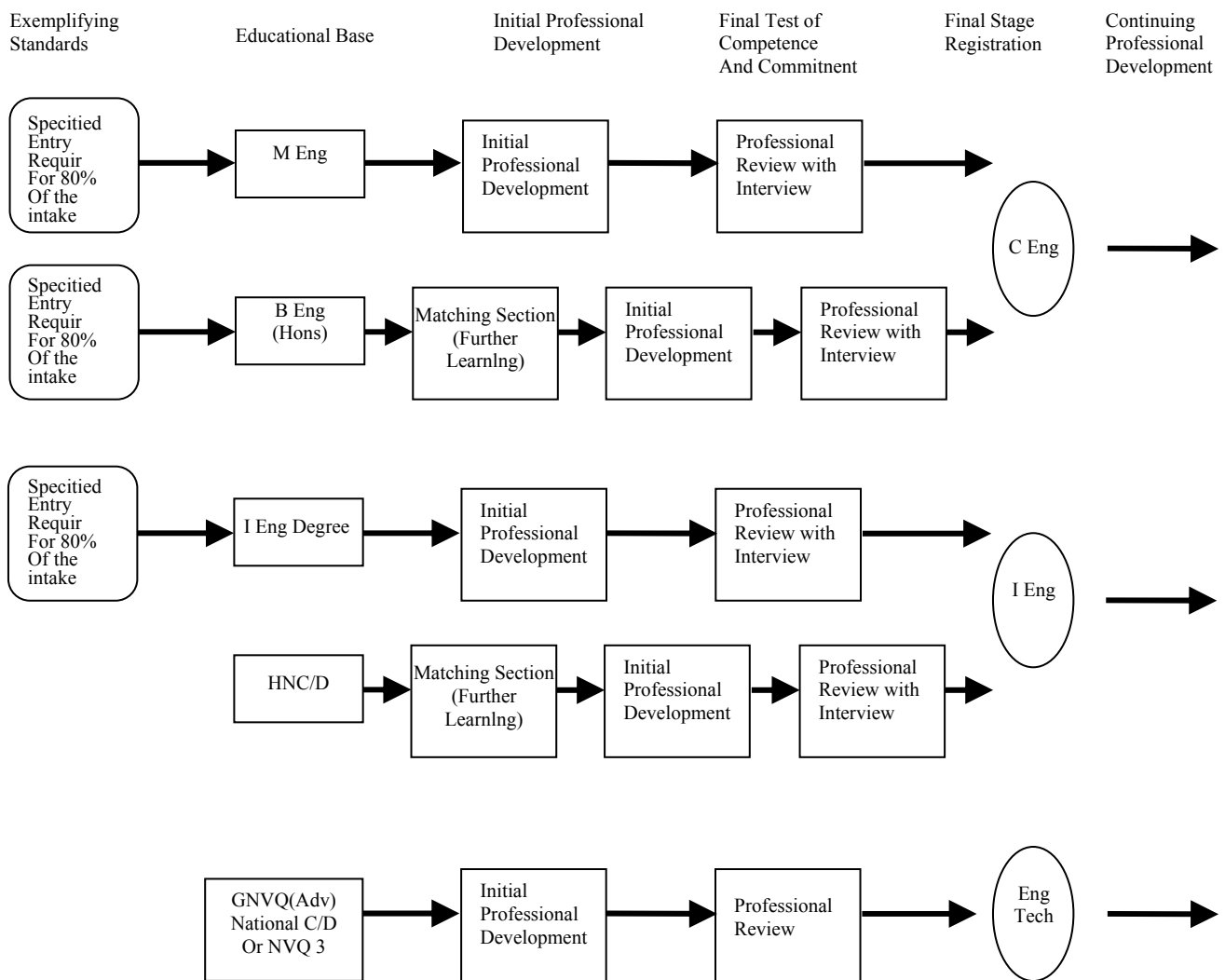
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(Ingenieur Diplome)

(Ingenieur Reconnu

Scientifique)

(Ingenieur Reconnu)



ECUK

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(ECUK, 2005)

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(The Deutscher Verband Technisch-

(The Zentralverband der

Wissenschaftlicher Vereine, DVT)

Ingenieurvereine, ZBI)

(DVT)

(The Verein Deutscher Ingenieure, VDI)

(VDI) (DVT)

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(University of Applied

(University)

(Diplom – ingénieur (univ/Tu/TH))

Science)

(The Fachhochschulen, FH)

(Formal Process of Accreditation)

(VDI)

(Hamilton,2000)

(The Consiglio Nazionale dei Ingegneri, CNI)

(The Ordine Provinciale degli Ingegneri, OPI)

(The Corso di Laurea, CDL)
(The Corso di Diploma Universitario, CDU)

(Hamilton,2000)

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(The Society of Danish Engineers)

(Graduate
(Export Engineer)

‘(Diploma Engineer)
,Engineer)

(External examiners)

(The Danish Center for higher education

and quality development)

(Hamilton,2000)

(Technical Chamber of Greece, TEE)

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(Graduate Diploma)

(The Institution of Engineers of Ireland, IEI)

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(Colleges Regional

Tech. Colleges and Vocational Education Committee)

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(Eng.Tech IEI)

(A Eng. IEI)

(C.Eng IEI)

(The National Council for Academic Awards, NCEA)

(Chartered Eng)

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(Hamilton,2000)

(Norges Ingenior Organisasjon, NITO)

(Norske Sivilingeniorers Forening, NIF)

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(Instituto de

(superior) la Ingenieria de Espana, IIE)
(Chartered Engineers)
(Technical (Instituto de Ingenieros Tecnicos de Espana, INITE)
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(NCEES,2003)

(The Canadian

Council of Professional Engineers, CCPE)

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(Fundamentals exams, FE)

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(Canadian Engineering Accreditation Board, CEAB)

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(Professional Practice Exam, PPE)

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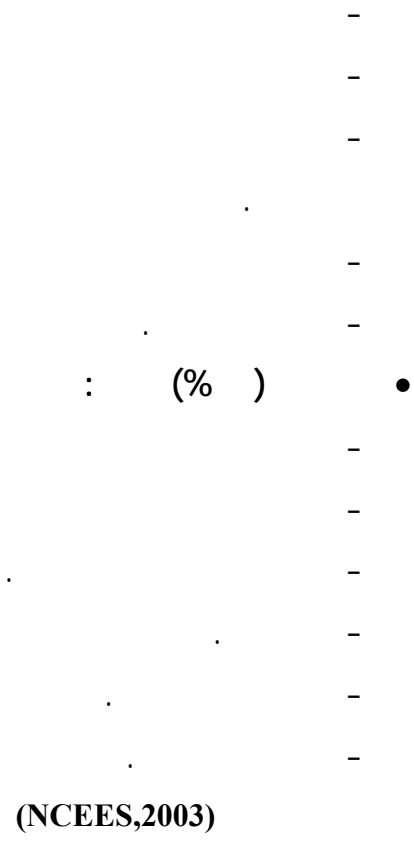
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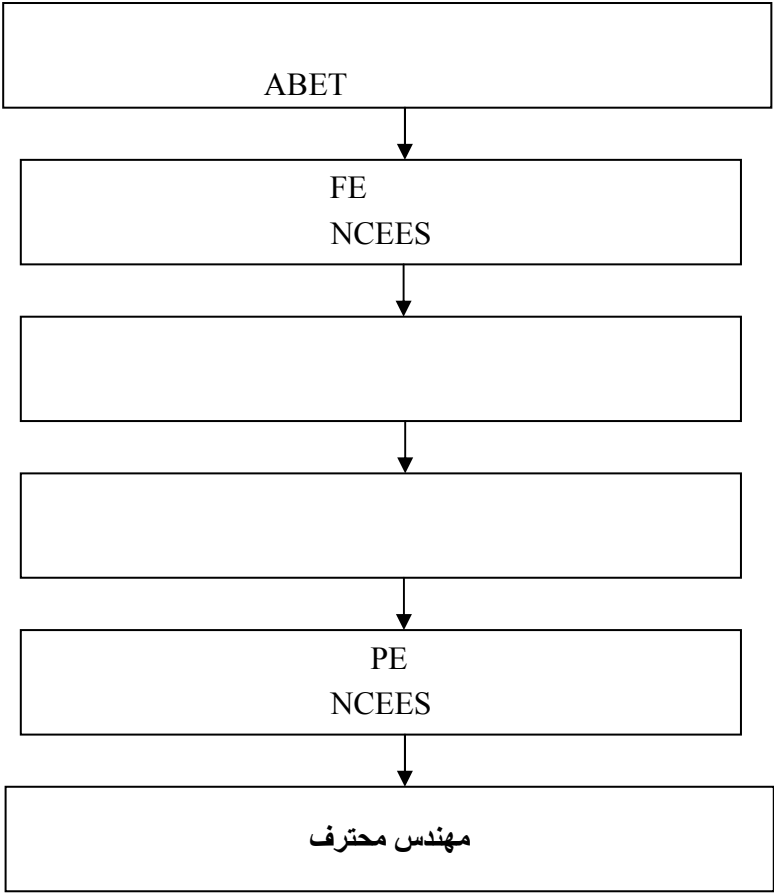
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(National Council of Examiners for Engineering and Surveying, NCEES)

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- PE Control System
- PE Agricultural
- PE Environmental
- PE Metallurgical
- PE Structural II
- PE Naval Architecture and Marine Engineering
- PE Civil
- PE Industrial
- PE Electrical and Computer
- PE Mechanical
- PE Petroleum
- PE Chemical
- PE Fire Protection
- PE Architectural
- PE Structural I
- PE Nuclear
- PE Mining and Mineral

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Civil Engineers, ASCE)

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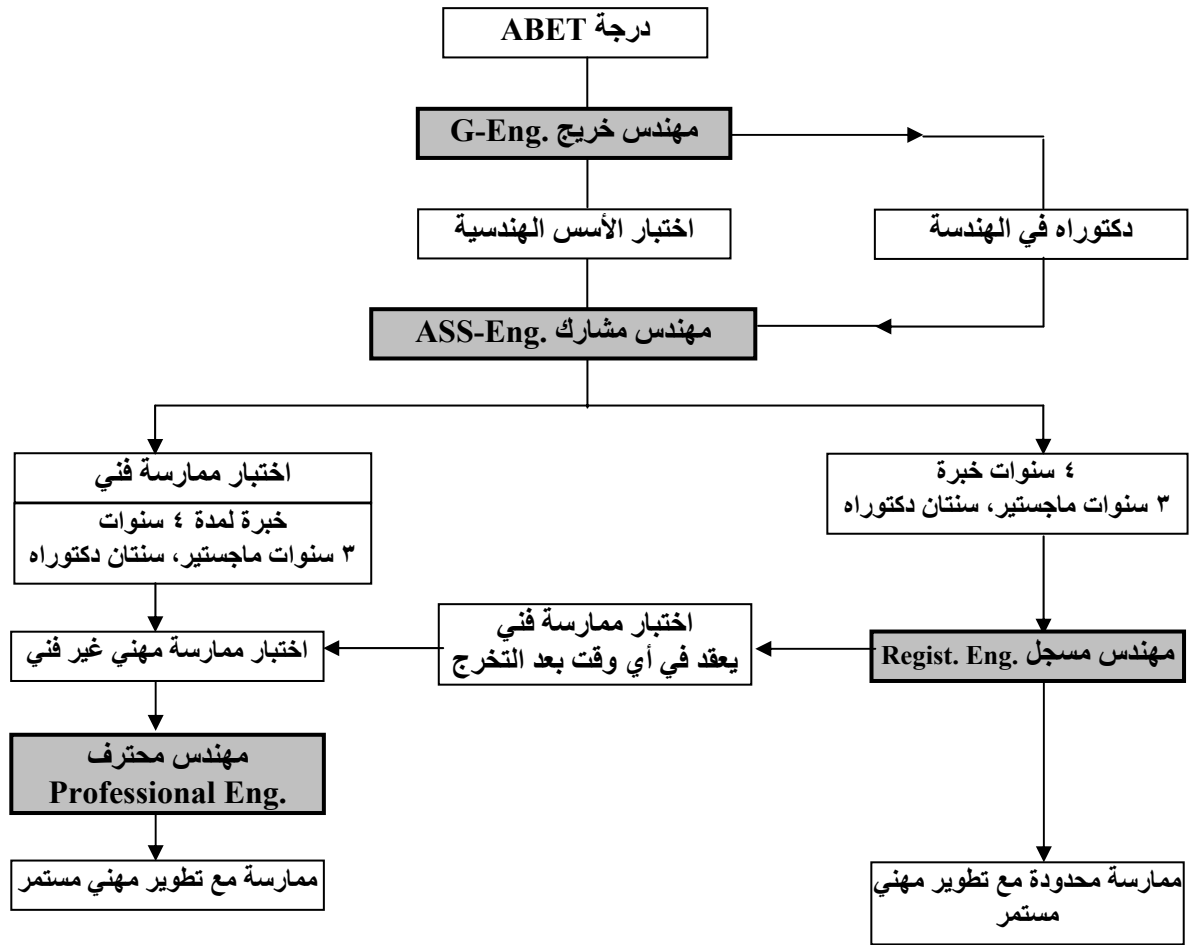
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(Board of Engineers Malasia, BEM)

(BEM,2005)

(Professional Engineer)

(Graduate Engineer)

(Professional Assessment Examination, PAE)

(The Institution of Engineers

(Corporate Member)

Malaysia, IEM)

(PAE)

(Engineering

research)

(Registered Profession Engineer)

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(Professional Interview)

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Professional Engineers, TPE)

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(Board Of Engineers Malaysia, 2003)

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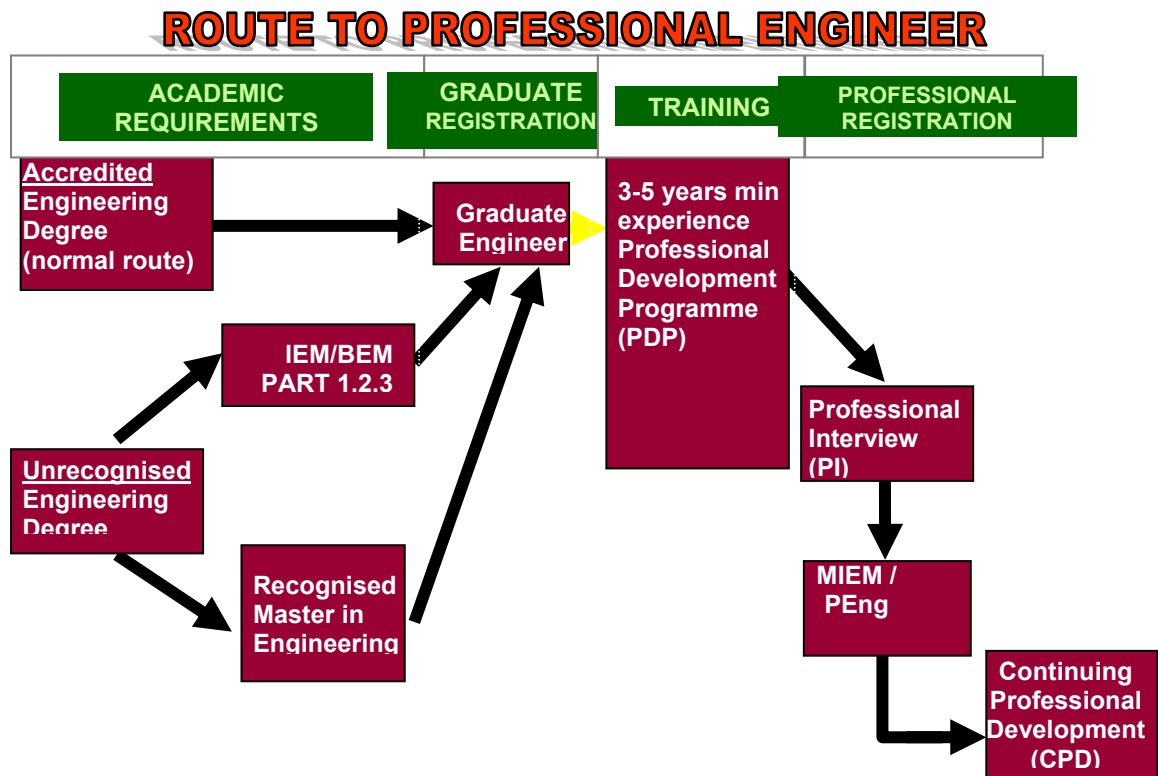
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(Abdullah.2005)

(Hamilton,2000)

(Science and Technology

(Gijutsushi)

Agency, STA)

(The Japan Consulting Engineers Association, JCEA)

(Gijutsushi)

(Kenchikushi)

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(Ministry of Construction)

(Kenchikushi)

(Gijutsushi)

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(Hamilton,2000)

(Registered

(Gijutsushi)

(Registered Engineer, RE)

Associate Engineer, RAE)

(Kenchikushi)

•(Second class and first class)

:

(Senior high school)

(Kenchikushi)

(Kenchikushi) (Gijutsushi)

(APEC Japan,2003)

: (Gijutsushi) (RE)

(RE)

(%)

(APEC korea,2003)

(Construction Engineers)

(The Ministry of Construction & Transportation)

(Principal Eng.) (Construction engineer's grade)

⌘(Junior Eng.) ⌘(Intermediate Eng.) (Senior engineer)

(Career Certification)

(Construction technical field

to Korea Construction Engineers Association, KCEA)

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•(Technically qualified Person)

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(Career Person with academic degree)

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(Career Person)

(Construction Technical)

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(Accreditation Bord for Engineering

and Technology, ABET)

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COURSE	TITLE	LT	LB	CR	COURSE	TITLE	LT	LB	CR
First Year	(Preparatory)								
ENGL 001	Preparatory English I	15	5	8	ENGL 002	Preparatory English II	15	5	8
MATH 001	Preparatory Math I	3	1	4	MATH 002	Preparatory Math II	3	1	4
ME 001	Preparatory Shop I	0	2	1	ME 002	Preparatory Shop II	0	2	1
PE 001	Prep Physical Ed I	0	2	1	PE 002	Prep Physical Ed II	0	2	1
Total Credit	For the Semester	18	10	14			18	10	14
Second Year	(Freshmen)								
ARC 100	Architectural Graphics	0	10	5	ARC 101	Design Studio I	0	10	5
ARC 110	History of Arch I	2	0	2	ARC 112	History of Arch II	2	0	2
ARC 132	Man & Built Env.	2	0	2	ARC 124	Comp Aided Arch Design	2	3	3
ENGL 101	Eng. Composition I	3	0	3	ENGL 102	Eng. Composition II	3	0	3
MATH 130	Math for Architects	3	0	3	PHYS 133	Principles of Physics	3	3	4
IAS 111	Belief & its Conseq.	2	0	2	PE 102	Physical Ed. II	0	2	1
PE 101	Physical Ed I	0	2	1					
Total Credit	For the Semester	12	10	18			10	18	18
Summer Session					IAS 101	Practical Grammar	2	0	2
					Total Credit	For the Semester	2	0	2
Third Year	(Sophomore)								
ARC 202	Design Studio II	0	10	5	ARC 203	Design Studio III	0	10	5
ARC 210	History of Islam. Arch.	2	0	2	ARC 222	Structure in Arch II	3	0	3
ARC 221	Structure in Arch I	3	0	3	ARC 251	Intro Urban Design	2	0	2
ARC 225	Virtual Reality In Arch	2	3	3	ARC 281	Arch. of Saudi Arabia	2	0	2
ARE 211	Building Materials	2	3	3	ARE 212	Construction Systems	3	0	3
IAS 211	Ethics in Islam	2	0	2	ARE 328	Acoustics & illumination	3	0	3
Total Credit	For the Semester	11	16	18			13	10	18
Summer Session					ENGL 214	Tech Report Writing	3	0	3
					CE 260	Surveying I	2	3	3
					Total Credit	For the Semester	5	3	6
Fourth Year	(Junior)								
ARC 304	Design Studio IV	0	12	6	ARC 305	Design Studio V	0	12	6
ARC 313	Theories of Arch I	2	0	2	ARC 314	Theories of Arch II	2	0	2
ARC 315	Perception Geom. & Color	2	0	2	ARC 353	Housing Policy & Design	2	0	2
ARC 323	Structure in Arch III	3	0	3	ARC xxx	ARC Opt Elective I	2	0	2
ARE 322	Mechanical Systems	2	3	3	ARE 431	Building Economy	3	0	3

IAS 201	Objective Writing	2	0	2	XXX.xxx	Free Elective I	3	0	3
Total Credit	For the Semester	11	15	18			12	12	18
Summer					ARC 399	Summer Internship	0	0	1
					Total Credit	For the Semester	0	0	1
Fifth Year	(Senior)								
ARC 400	Senior Proj programming	2	0	2	ARC 408	Senior Project	0	14	7
ARC 406	Design Studio VI	0	12	6	ARC 426	Professional Practice	3	0	3
ARC 407	Construction Documents	0	6	3	ARC xxx	Free Elective II	2	0	2
ARC 435	Des. Det in Arid Reg	2	0	2	IAS 311	Islamic Shareah	2	0	2
ARC xxx	ARC Opt Elective II	2	0	2					
IAS 301	Style of Literature	2	0	2					
Total Credit	For the Semester	8	18	17			7	14	14

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First Year (Preparatory)											
COURSE		TITLE	LT	LB	CR	COURSE		TITLE	LT	LB	CR
ENGL.	001	Prepzratory English I	15	5	8	ENGL.	002	Preparatory English II	15	5	8
MATH	001	Preparatory Math I	3	1	4	MATH	002	Preparatory Math II	3	1	4
ME	001	Preparatory Shop I	0	2	1	ME	002	Preparatory Shop II	0	2	1
ME	001	Preparatory Shop I	0	2	1	ME	002	Preparatory Shop II	0	2	1
PE	001	Prep Physical Educ. I	0	2	1	PE	002	Prep Physical Educ. II	0	2	1
			18	10	14				18	10	14
Total credits required in Preparatory Program: 28											
Second Year (Freshman)											
COURSE		TITLE	LT	LB	CR	COURSE		TITLE	LT	LB	CR
ARE	100	Introduction to ARE	1	0	1	IAS	111	Islamic Ideology	2	0	2
CHEM.	101	General Chemistry I	3	4	4	ICS	102	Intr. to Computing	2	3	3
ENGL.	101	English Composition I	3	0	3	ENGL	102	English Composition II	3	0	3
MATH	101	Calculus I	4	0	4	MATH	102	Calculus II	4	0	4
PE	101	Physical Education I	0	2	1	PE	102	Physical Education II	0	2	1
PHYS	101	General Physics I	3	3	4	PHYS	102	General Physics II	3	3	4
			14	9	17				14	8	17

Third Year(Sophomore)											
COURSE		TITLE	LT	LB	CR	COURSE		TITLE	LT	LB	CR
ARE	201	Architectural Graphics	0	6	2	ARE	202	Architectural Design I	0	9	3
ARE	211	Building Materials	2	3	3	ARE	212	Construction Systems	3	0	3
ARC	110	History of Architecture	2	0	2	ARE	221	Computer Appl. in Bldg Des.	2	3	3
CE	201	Statics	3	0	3	CE	203	Structural Mechanics I	3	0	3
IAS	101	Practical Grammar	2	0	2	CE	230	Eng. Fluid Mechanics	3	0	3
MATH	201	Calculus III	3	0	3	MATH	202	Elem. Diff. Equations	3	0	3
ME	203	Thermodynamics	3	0	3						
			15	9	18				14	12	18
Fourth Year(Junior)											
COURSE		TITLE	LT	LB	CR	COURSE		TITLE	LT	LB	CR
ARE	301	Architectural Design II	0	9	3	ARE	303	Working Drawings	0	9	3
ARE	320	Architectural Acoustics	2	3	2	ARE	325	Building Illumination	1	3	2
ARE	322	Building Mechanical Sys.	2	3	3	ARE	342	Principles of HVAC	2	0	2
CE	305	Structural Analysis I	3	0	3	CE	315	Reinforced Concrete I	2	3	3
CE	260	Surveying I	2	3	3	IAS	201	Objective Writing	2	0	2
ENGL.	214	Tech. Report Writing	3	0	3	EE	208	Electrical Systems	2	3	3
IAS	211	Ethics in Islam	2	0	2	IAS	222	Human Rights in Islam	2	0	2
			12	18	19				11	18	17
		Summer Session				ARE	350	Coopertive Work Prog.	0	0	0
Fifth Year(Senior)											
COURSE		TITLE	LT	LB	CR	COURSE		TITLE	LT	LB	CR
ARE	351	Cont. of Coop Work	0	0	9	ARE	413	Construction Mgt.	3	0	3
						ARE	431	Building Economy	3	0	3
						ARE	4xx	(ARE Elective II)	3	0	3
						CE	353	Geotechnical Engineering I	3	3	4
						IAS	301	Styles of Literature	2	0	2
						IAS	4xx	(IAS Elective)	2	0	2
						XE	xxx	(Technical Elective)	3	0	3
			0	0	9				16	3	17

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(College of Architecture and Environmental Design)

(California Polytechnic State University, SanLuis Obispo)

(ABET)

(National Architectural Accrediting

ABET

Board, NAAB)

College of

California

Architecture and Environmental Design

. Polytechnic State University, Sanluis Obispo

California polytechnic state university, san luis obispo	
College of architecture and environmental design	
Architecture department	Architectural Engineering department
<p>The architecture program is structured to develop and advance the design and technical skills that, coupled with studies in the humanities and communication, prepare students for entry into the profession's vast world of opportunities. As a social art, architecture is a highly regarded profession in America today and there are myriad career choices within its domain. Graduates find success not only in the customary roles for design and construction, but also in fields that vary from media animation to manufacturing and from corporate facility management to ecology.</p> <p>The curriculum comprises four, mutually reinforcing sequences of courses:</p> <ul style="list-style-type: none">:: Design: Taught in highly interactive studios with relevant practice courses concurrently scheduled.:: Graphic Communication: Skills and abilities essential in today's marketplace.:: Materials, Construction and Architectural Practice: Stressing, as Cal Poly's signature, learn-by-doing experiences.:: Math, Physics, Structural Engineering, Architectural Science, History, Computer Applications, Theory and Criticism, and Professional Electives. <p>The five-year Bachelor of Architecture degree</p>	<p>The architectural engineering (ARCE) curriculum, one of the most demanding in the University, prepares the student for a professional career in the structural design of buildings. This program is unique in that it goes beyond sound fundamentals of science and mathematics to stress the practical application of interdisciplinary design principles. Through exposure to the other design and construction disciplines, ARCE students develop much-needed abilities for total professional interaction. The program requires skills and aptitudes in mathematics, sciences and deductive thinking. This program affords the student the opportunity to use these rudimentary skills as a basis for the interactive, creative development of a total design concept.</p> <p>The curriculum is strongly structured and rigorous. It includes sequences in:</p> <ul style="list-style-type: none">:: graphics and computer-aided drafting;:: architectural design, history and practice;:: soil mechanics and laboratory;:: structural mechanics and systems;:: computer practice in structural engineering;:: design fundamentals of structural materials; and:: structural design laboratories. <p>Design laboratories are presented in a studio format that emphasizes learn by doing.</p>

program is accredited by the National Architectural Accreditation Board (NAAB) and is the first professional degree leading to professional registration as an architect.	Theoretical learning is supported by both the intellectual freedom of experimental projects and the discipline of hands-on design problems. The four-year Bachelor of Science in Architectural Engineering degree program is accredited by the Accreditation Board for Engineering and Technology (ABET) . Graduates normally become registered as structural engineers
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(California Polytechnicstate University. 2006) :

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(National Council of Architectural Registration Boards, NCARB)

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(NCARB)

requirements education	
1. General Education 40 Semester Hours Required	<ul style="list-style-type: none"> • English • Humanities • Mathematics • Natural Sciences • Social Studies
2. History, Human Behavior, 16 Semester Hours & Environment Required	<ul style="list-style-type: none"> • History • Human Behavior • Environment
3. Technical Systems 24 Semester Hours Required	<ul style="list-style-type: none"> • Structural Systems • Environmental Control Systems • Construction Materials and Assemblies
4. Practice 5 Semester Hours Required	<ul style="list-style-type: none"> • Project Process, Economics, and Business Management • Laws and Regulations
5. Design 50 Semester Hours Required	<p>Level I: Individual learning experiences within a non-building spatial context; beginning user consciousness with a familiarity of spatial analysis, design process methodology, and development of communication skills; design literacy.</p> <p>Level II: The foundation sequence continues with greater emphasis on the environment, user space study, and further skill development; introduction of qualitative technical materials; a minimum proficiency in the design and communication of simple buildings with an introductory understanding of construction and structural systems; data analysis, programming, site analysis, and design.</p> <p>Level III: Simple and complex building case studies</p>

	<p>with qualitative technical input; individual and group projects; total building synthesis developed; a general proficiency in the complete design of simple buildings with a minimum ability to deal with complex buildings and multibuilding complexes; site analysis and design.</p> <p>Level IV: The synthesis of complex building and multi-building complexes within the urban context; integration of technical information; general proficiency in the total synthesis of complex buildings and related systems; transportation, communication, and social ramifications of planning and architecture.</p> <p>Level V: Project emphasis on complex building design, planning, and urban design; Level V work must indicate a mastery of data collection, analysis, programming, planning, building design, structures, building systems, landscape design, and other related knowledge.</p>
6. Electives	<p>The minimums noted in each subject area total 135 semester hours of credit. The additional 25 semester hours of credit may be taken in any one or more of the five subject areas and/or acceptable elective subjects. Acceptable elective subject areas include the following: Architecture, Business Administration, Computer Science, engineering, Interior Design, Law, Public Administration, and other courses that in the opinion of NAAB are acceptable toward the elective requirements.</p>

(The National Council of Architectural Registration Boards Education Standard, 2005-2006) :

(N C A R B, 2005)

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(Architect)

(N C A R B, 2006)

(Architect)

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(Architect)

(The Hampshire board of licensure for architects,2003)

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(The Hampshire board of licensure for

(Architecture)

architects,2003)

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(NCARB.2004)

(Architect)

(Intern Development Program, IDP)

(N C A R B)

(The Architect Registration Examination, ARE)

(NCARB)

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(NCARB 2004)

•(National Architectural Accrediting Board, NAAB)

() (Accrediting Board for Engineering and Technology, ABET)

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(NCARB)

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COMPARISON OF CURRICULA IN SIX ACCREDITED ARCHITECTURE AND CIVIL ENGINEERING PROGRAMS*		
SUBJECT AREA	B. ARCHITECTURE	B.S. CIVIL ENG
<u>General Education</u>		
English (oral and written)	7.7**	7.8
Mathematics	5.2	17.3
Physical Sciences	6.8	22.8
Social Sciences and Humanities	14.0	13.0
Applied Art, Fine Art, Arch. History	14.0	3.2
<u>Technical Systems</u>		
Structural Systems	8.5	20.6 (Specifies
Environmental Systems	7.6	15.2 among
Construction Materials and Systems	6.7	three
Applied Sciences	1.0	Subject areas
<u>Design</u>		
Basic Design	8.4	3.8
Fundamentals of A/E	3.8	
Comprehensive Design	39.3	5.8
Graphics, Computer Applications	5.8	3.0
<u>Professional Practice</u>	9.0	3.2
<u>Professional Electives</u>	20.3	23.5
TOTAL SEMESTER HOURS	157.3	122.3
* Based on curricula at California Polytechnic State University at San Luis Obispo, Carnegie-Mellon University, Kansas State University, Mississippi State University, Norwich University, and Washington State University. Sample reflects diversity in geographic location, university size, academic reputation, and public/private status. Catalogue course descriptions were used to categorize courses.		
** All academic course units were converted to semester hours.		

(NCARB 2004) :

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.(IDP)

(Architect Registration Examination, ARE)

:(IDP Training Requirements)

(NCARB, 2004)

(IDP)

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Comparison of Engineering & Architecture Qualification Aspects

NCARB	NCEES	
(Architect Registration Examination (ARE))	(Licensing boards)	
National Architectural Accrediting Board (NAAB)	Accreditation Boards For Engineering and Technology (ABET)	
(Structural Technology) (Electrical and Mechanical System) (Acoustics)	()	Pre- exam
(Intern Development Program (IDP)) (IDP)		
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(NCARB, 2004):

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(RIBA, 2006) (Architect)

(Architects Registration Board, ARB)

. (Royal Institution of British Architects, RIBA)

(Architects Registration Board, (RIBA, 2006)

(Royal Institution of British Architects, RIBA) ARB)

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(ABA, BSc or BArch) •

(The RIBA Part 1 professional qualification)

(year out) •

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(BArch) •

(The RIBA Part 2 professional qualification)

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(The RIBA Part 3 examination)

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(The RIBA Part 3 Examination)

(RIBA)

(ARB)

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(RIBA Examination in

(RIBA, 2005)

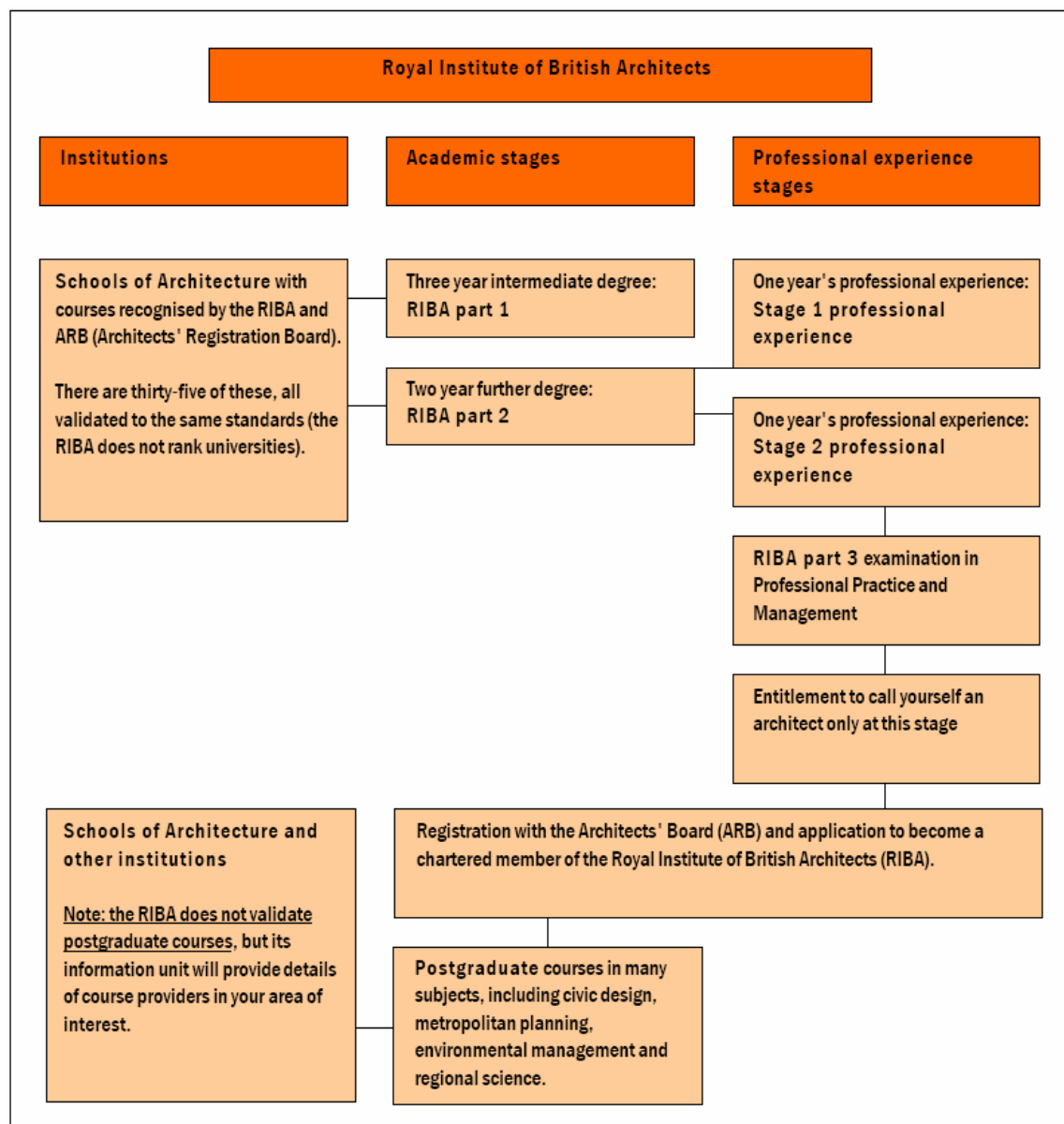
Professional Practice and Management (Part 3))

(RIBA)

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(RIBA)

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RIBA

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(RIBA, 2004)

(The Professional Experience and Development Record)

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(Professional CV and Professional Experience

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(Professional Casework)

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(Written Examinations) -

.(Open Book) "

(The Professional Interview) -

(RIBA,2003)

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:(**Final Architectural Examination**)

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(The RIBA Examination in Architecture Part 3)

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 (The Board of Architects (BAM, 2005)
 : Malaysia, BAM)
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(Council of Architectural Education Malausia, CAEM)
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(Policy and Criteria for Accreditation)

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Persekolahan Malaysia, STPM)

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(Architectural Examination Council Malaysia, AECM)

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: (Registration As Professional Architects)

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(Architectural Graduate)

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(Part III Professional .III

.Practice Examination)

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(Part III Professional Practice		-	
	.Examination)		
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:	(Registration of Building Draughtsman)	-	
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(Malaysia Certificate of Education)		-	
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(University Technology Malaysia)		-	
	(University Technology MARA)		
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(Second Government and Technical Examination, Building)			
(Technical Assistants)			
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	(Drawing Test)	(Proficiency Test)	
	.(Registration Committee of the Board)		
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(Architectural Examination Council Malaysia, AECM)

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(The Part III Professional **III**

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(Professional Casework Submission)	-
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Architects Rules 1996	-

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: (The Architectural Practice)

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(Professional Legislation and Professional Bodies)

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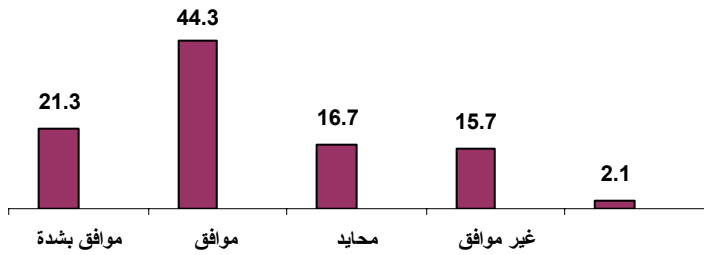
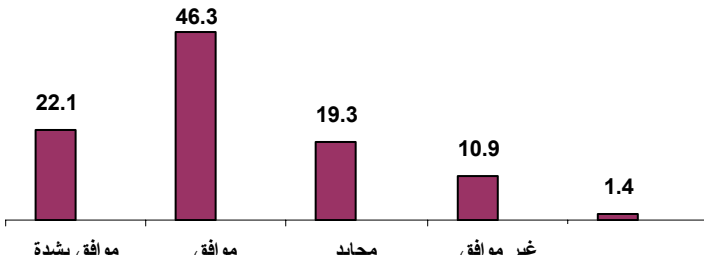
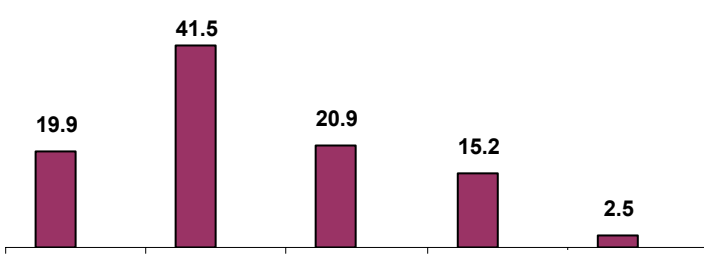
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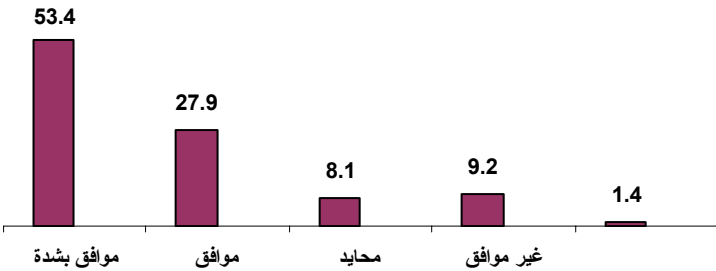
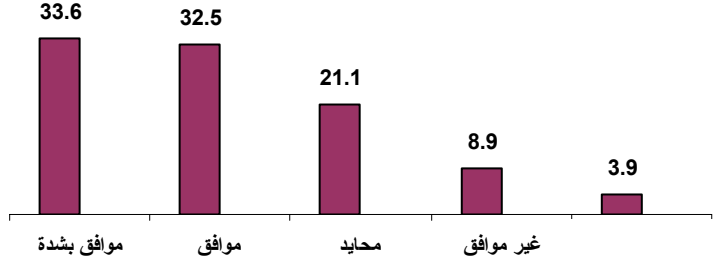
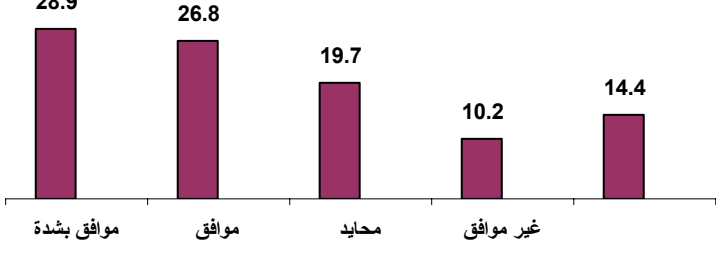
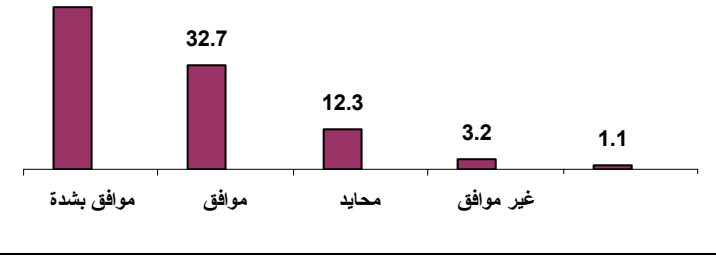
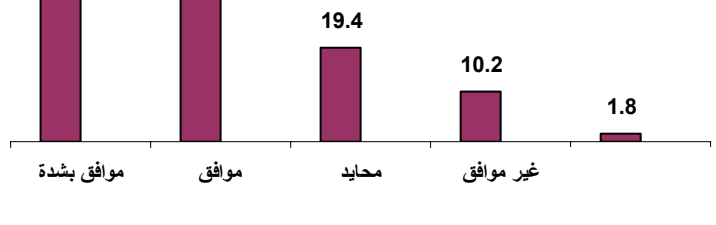
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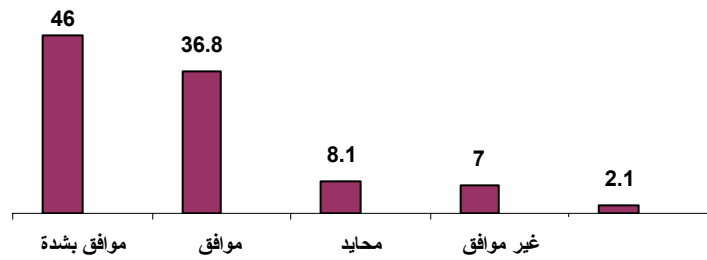

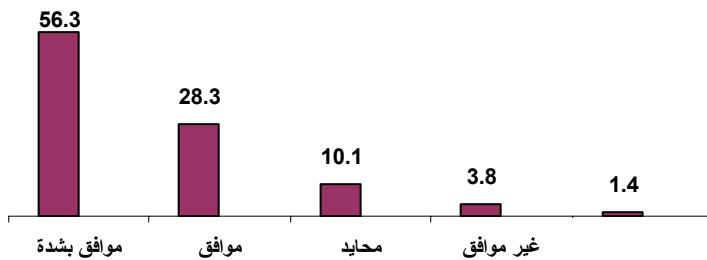
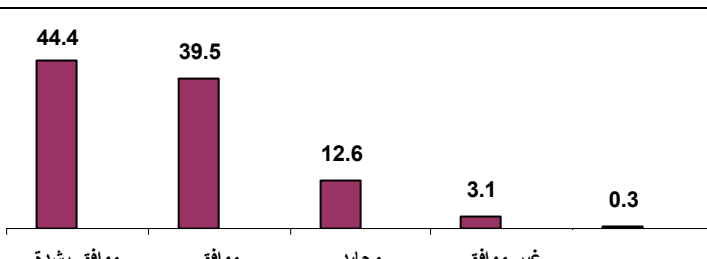
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 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>21.3</td></tr><tr><td>موافق</td><td>44.3</td></tr><tr><td>محايد</td><td>16.7</td></tr><tr><td>غير موافق</td><td>15.7</td></tr><tr><td></td><td>2.1</td></tr></table>	Category	Percentage	موافق بشدة	21.3	موافق	44.3	محايد	16.7	غير موافق	15.7		2.1	.	
Category	Percentage													
موافق بشدة	21.3													
موافق	44.3													
محايد	16.7													
غير موافق	15.7													
	2.1													
 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>22.1</td></tr><tr><td>موافق</td><td>46.3</td></tr><tr><td>محايد</td><td>19.3</td></tr><tr><td>غير موافق</td><td>10.9</td></tr><tr><td></td><td>1.4</td></tr></table>	Category	Percentage	موافق بشدة	22.1	موافق	46.3	محايد	19.3	غير موافق	10.9		1.4	.	
Category	Percentage													
موافق بشدة	22.1													
موافق	46.3													
محايد	19.3													
غير موافق	10.9													
	1.4													
 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>19.9</td></tr><tr><td>موافق</td><td>41.5</td></tr><tr><td>محايد</td><td>20.9</td></tr><tr><td>غير موافق</td><td>15.2</td></tr><tr><td></td><td>2.5</td></tr></table>	Category	Percentage	موافق بشدة	19.9	موافق	41.5	محايد	20.9	غير موافق	15.2		2.5	.	
Category	Percentage													
موافق بشدة	19.9													
موافق	41.5													
محايد	20.9													
غير موافق	15.2													
	2.5													

 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>53.4</td></tr><tr><td>موافق</td><td>27.9</td></tr><tr><td>محايد</td><td>8.1</td></tr><tr><td>غير موافق</td><td>9.2</td></tr><tr><td></td><td>1.4</td></tr></table>	Category	Percentage	موافق بشدة	53.4	موافق	27.9	محايد	8.1	غير موافق	9.2		1.4		
Category	Percentage													
موافق بشدة	53.4													
موافق	27.9													
محايد	8.1													
غير موافق	9.2													
	1.4													
 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>33.6</td></tr><tr><td>موافق</td><td>32.5</td></tr><tr><td>محايد</td><td>21.1</td></tr><tr><td>غير موافق</td><td>8.9</td></tr><tr><td></td><td>3.9</td></tr></table>	Category	Percentage	موافق بشدة	33.6	موافق	32.5	محايد	21.1	غير موافق	8.9		3.9		
Category	Percentage													
موافق بشدة	33.6													
موافق	32.5													
محايد	21.1													
غير موافق	8.9													
	3.9													
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Category	Percentage													
موافق بشدة	28.9													
موافق	26.8													
محايد	19.7													
غير موافق	10.2													
	14.4													
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Category	Percentage													
موافق بشدة	50.7													
موافق	32.7													
محايد	12.3													
غير موافق	3.2													
	1.1													
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Category	Percentage													
موافق بشدة	30.6													
موافق	38													
محايد	19.4													
غير موافق	10.2													
	1.8													

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Category	Percentage													
موافق بشدة	46													
موافق	36.8													
محايد	8.1													
غير موافق	7													
	2.1													
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Category	Percentage													
موافق بشدة	74.1													
موافق	21.3													
محايد	3.5													
غير موافق	1													
	0													
 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>56.3</td></tr><tr><td>موافق</td><td>28.3</td></tr><tr><td>محايد</td><td>10.1</td></tr><tr><td>غير موافق</td><td>3.8</td></tr><tr><td></td><td>1.4</td></tr></table>	Category	Percentage	موافق بشدة	56.3	موافق	28.3	محايد	10.1	غير موافق	3.8		1.4		
Category	Percentage													
موافق بشدة	56.3													
موافق	28.3													
محايد	10.1													
غير موافق	3.8													
	1.4													
 <table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>44.4</td></tr><tr><td>موافق</td><td>39.5</td></tr><tr><td>محايد</td><td>12.6</td></tr><tr><td>غير موافق</td><td>3.1</td></tr><tr><td></td><td>0.3</td></tr></table>	Category	Percentage	موافق بشدة	44.4	موافق	39.5	محايد	12.6	غير موافق	3.1		0.3		
Category	Percentage													
موافق بشدة	44.4													
موافق	39.5													
محايد	12.6													
غير موافق	3.1													
	0.3													

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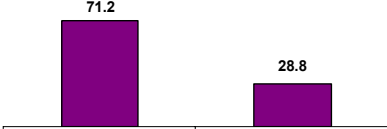
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Category	Percentage													
موافق بشدة	49.8													
موافق	40.4													
محايد	8.1													
غير موافق	1.7													
غير موافق	0													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>27.8</td></tr><tr><td>موافق</td><td>52.7</td></tr><tr><td>محايد</td><td>13.1</td></tr><tr><td>غير موافق</td><td>5.1</td></tr><tr><td>غير موافق</td><td>1.3</td></tr></table>	Category	Percentage	موافق بشدة	27.8	موافق	52.7	محايد	13.1	غير موافق	5.1	غير موافق	1.3	.	
Category	Percentage													
موافق بشدة	27.8													
موافق	52.7													
محايد	13.1													
غير موافق	5.1													
غير موافق	1.3													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>55.5</td></tr><tr><td>موافق</td><td>35.3</td></tr><tr><td>محايد</td><td>7.1</td></tr><tr><td>غير موافق</td><td>2.1</td></tr><tr><td>غير موافق</td><td>0</td></tr></table>	Category	Percentage	موافق بشدة	55.5	موافق	35.3	محايد	7.1	غير موافق	2.1	غير موافق	0	.	
Category	Percentage													
موافق بشدة	55.5													
موافق	35.3													
محايد	7.1													
غير موافق	2.1													
غير موافق	0													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>43</td></tr><tr><td>موافق</td><td>41.4</td></tr><tr><td>محايد</td><td>12.2</td></tr><tr><td>غير موافق</td><td>2.1</td></tr><tr><td>غير موافق</td><td>1.3</td></tr></table>	Category	Percentage	موافق بشدة	43	موافق	41.4	محايد	12.2	غير موافق	2.1	غير موافق	1.3	.	
Category	Percentage													
موافق بشدة	43													
موافق	41.4													
محايد	12.2													
غير موافق	2.1													
غير موافق	1.3													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>49.4</td></tr><tr><td>موافق</td><td>37.1</td></tr><tr><td>محايد</td><td>10.5</td></tr><tr><td>غير موافق</td><td>3</td></tr><tr><td>غير موافق</td><td>0</td></tr></table>	Category	Percentage	موافق بشدة	49.4	موافق	37.1	محايد	10.5	غير موافق	3	غير موافق	0	.	
Category	Percentage													
موافق بشدة	49.4													
موافق	37.1													
محايد	10.5													
غير موافق	3													
غير موافق	0													

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<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>14.7</td></tr><tr><td>موافق</td><td>51.7</td></tr><tr><td>محايد</td><td>21.8</td></tr><tr><td>غير موافق</td><td>11.3</td></tr><tr><td></td><td>0.4</td></tr></table>	Category	Percentage	موافق بشدة	14.7	موافق	51.7	محايد	21.8	غير موافق	11.3		0.4		
Category	Percentage													
موافق بشدة	14.7													
موافق	51.7													
محايد	21.8													
غير موافق	11.3													
	0.4													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>65.3</td></tr><tr><td>موافق</td><td>31.4</td></tr><tr><td>محايد</td><td>2.9</td></tr><tr><td>غير موافق</td><td>0</td></tr><tr><td></td><td>0.4</td></tr></table>	Category	Percentage	موافق بشدة	65.3	موافق	31.4	محايد	2.9	غير موافق	0		0.4		
Category	Percentage													
موافق بشدة	65.3													
موافق	31.4													
محايد	2.9													
غير موافق	0													
	0.4													
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Category	Percentage													
موافق بشدة	56.2													
موافق	35.3													
محايد	6.4													
غير موافق	1.3													
	0.9													
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Category	Percentage													
موافق بشدة	18.3													
موافق	25.5													
محايد	27.7													
غير موافق	22.6													
	6													
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Category	Percentage													
موافق بشدة	15.7													
موافق	44.7													
محايد	20.4													
غير موافق	16.6													
	2.6													
<table><tr><th>Category</th><th>Percentage</th></tr><tr><td>موافق بشدة</td><td>31.8</td></tr><tr><td>موافق</td><td>53.4</td></tr><tr><td>محايد</td><td>11.9</td></tr><tr><td>غير موافق</td><td>2.5</td></tr><tr><td></td><td>0.4</td></tr></table>	Category	Percentage	موافق بشدة	31.8	موافق	53.4	محايد	11.9	غير موافق	2.5		0.4		
Category	Percentage													
موافق بشدة	31.8													
موافق	53.4													
محايد	11.9													
غير موافق	2.5													
	0.4													
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Category	Percentage													
موافق بشدة	43.5													
موافق	41.8													
محايد	12.7													
غير موافق	1.7													
	0.4													

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75.7	24.3					
71.2	28.8					

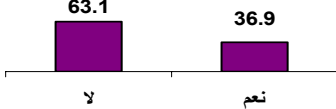
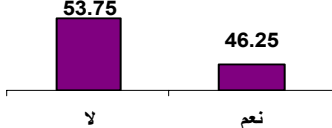
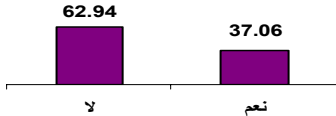
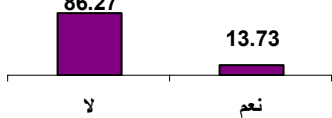
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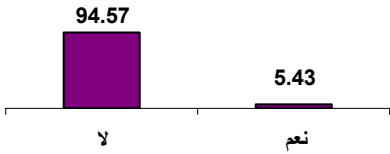
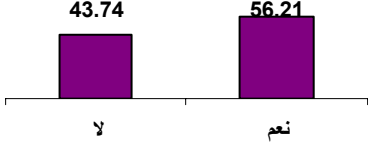
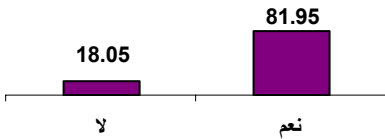

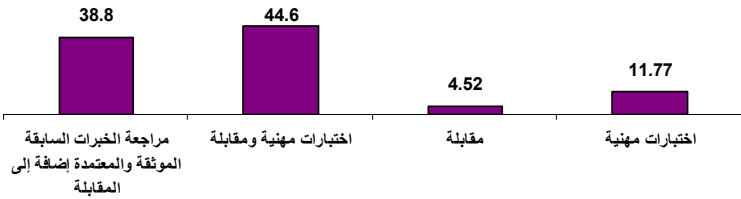
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53.75	46.25			
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62.94	37.06			
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86.27	13.73			

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 <p>18.05</p> <p>81.95</p> <p>لا نعم</p>		
 <p>8.25</p> <p>13.12</p> <p>32.66</p> <p>30.99</p> <p>14.98</p> <p>ست سنوات أربع سنوات ثلاث سنوات سنتين سنة</p>		
 <p>38.8</p> <p>44.6</p> <p>4.52</p> <p>11.77</p> <p>مراجعة الخبرات السابقة المؤتفة والمعتمدة إضافة إلى المقابلة</p> <p>اختبارات مهنية ومقابلة</p> <p>مقابلة</p> <p>اختبارات مهنية</p>		

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<p>58.13 38.35 2.97 0.43 0.12</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>48.82 42.21 7.08 1.65 0.25</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>57.54 35.51 5.87 0.89 0.18</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>40.9 46.87 9.93 2.15 0.15</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>55.04 37.56 6.4 0.77 0.24</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>36.09 51.46 10.22 1.76 0.47</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>49.94 42.83 6.14 1.35 0.18</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>47.94 42.49 8.37 1.02 0.18</p> <p>موافق بشدة موافق محايد غير موافق</p>		

<p>46.05 42.67 9.16 1.84 0.28</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>2.75 7.69 18.18 48.29 23.08</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	

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<p>7.26 14.48 19.21 41.67 17.38</p> <p>موافق بشدة موافق محايد غير موافق</p>)	(
<p>43.1 42.21 9.09 4.41 1.19</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>38.58 41.55 14.97 3.95 0.95</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>34.57 49.89 12.19 2.6 0.75</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>28.02 37.85 22.53 8.52 3.07</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	

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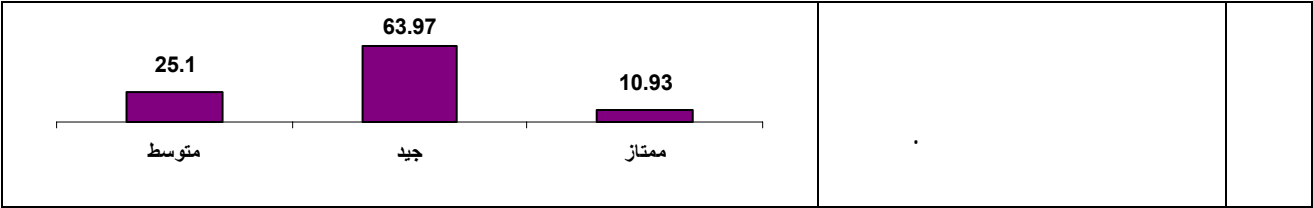
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<p>59.88 34.43 2.1 0.9 0.3</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>52.4 37.72 5.99 1.8 2.1</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>45.95 42.34 7.51 0.9 0.3</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>46.41 44.61 3.29 1.5 2.1</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>47.45 38.44 11.11 0.3 0.9</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>49.25 44.44 3.3 0.6 2.4</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	
<p>62.16 30.03 4.5 0 0.6</p> <p>موافق بشدة موافق محايد غير موافق</p>	.	

<p>3.12 4.67 14.64 41.43 31.15</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>39.44 41.3 10.25 5.59 0.62</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>39.69 48.75 8.13 0.63 0.63</p> <p>موافق بشدة موافق محايد غير موافق</p>		
<p>45.82 40.56 8.05 1.86 0.93</p> <p>موافق بشدة موافق محايد غير موافق</p>		

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<p>63.16 4.89 31.95</p> <p>التخصّص العلمي للمهندس</p>		
<p>0 0 18.12 65 16.88</p> <p>ضعيفة جداً ضعيفة متوسطة عالية عالية جداً</p>	()	
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<p>8.33 26.25 61.67 3.75</p> <p>غير راضٍ بتاتاً غير راضٍ راضٍ راضٍ جداً</p>		



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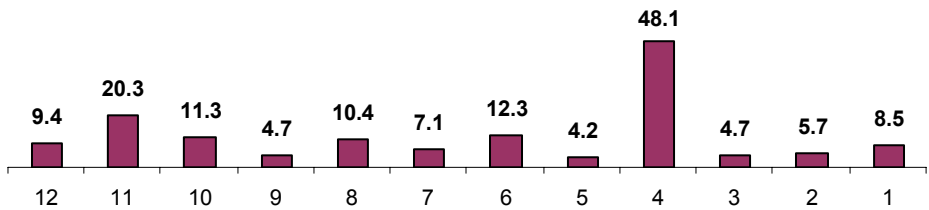
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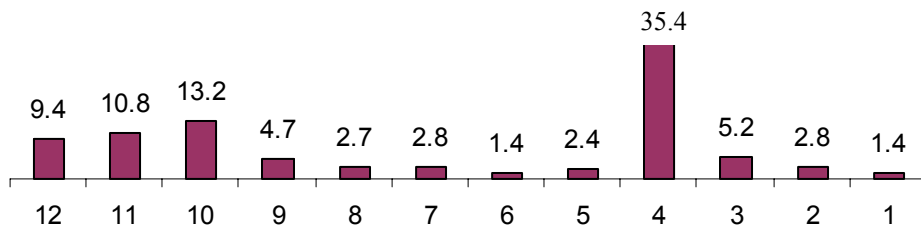
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نظرة المسنولين حول المعوقات المهنية
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نظرة المسنولين حول الحلول والمقترحات للتغلب على المعوقات المهنية
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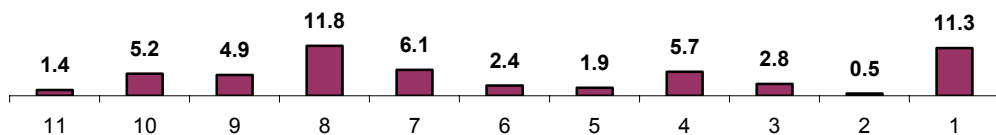
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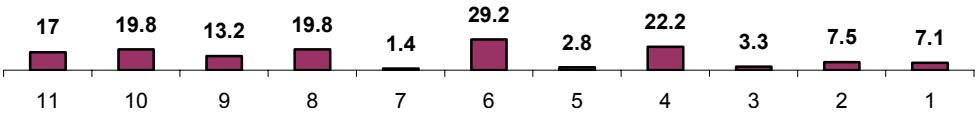
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نظرة المسنولين لأسباب تدني الأداء المهني للمهندسين السعوديين
(النسبة مئوية لكل سبب على حده)

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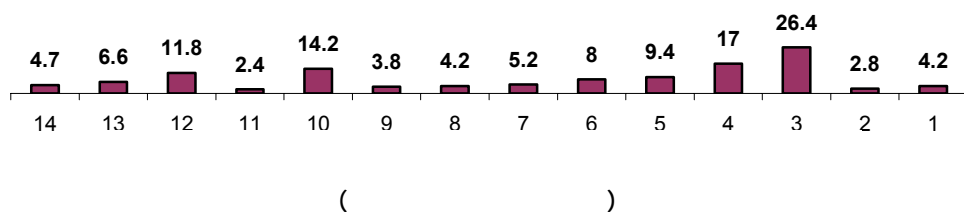
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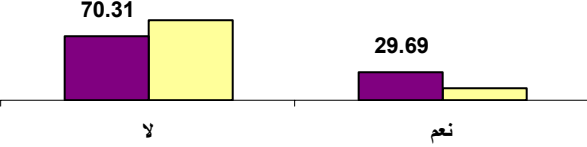
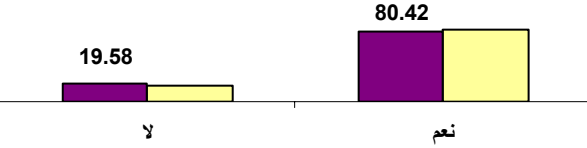
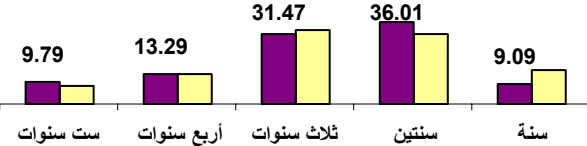


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<p>المهندسين</p> <p>المسؤولين</p>	.	
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<p>المهندسين المسؤولين</p>  <p>مراجعة الخبرات السابقة الموثقة والمعتمدة إضافة إلى المقابلة. اختبارات مهنية ومقابلة مقابلة اختبارات مهنية</p>		

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- 14-ENGINEER I
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- 16-ENGINEERING CONSULTANT
- 17-SR ENGINEERING CONSULTANT

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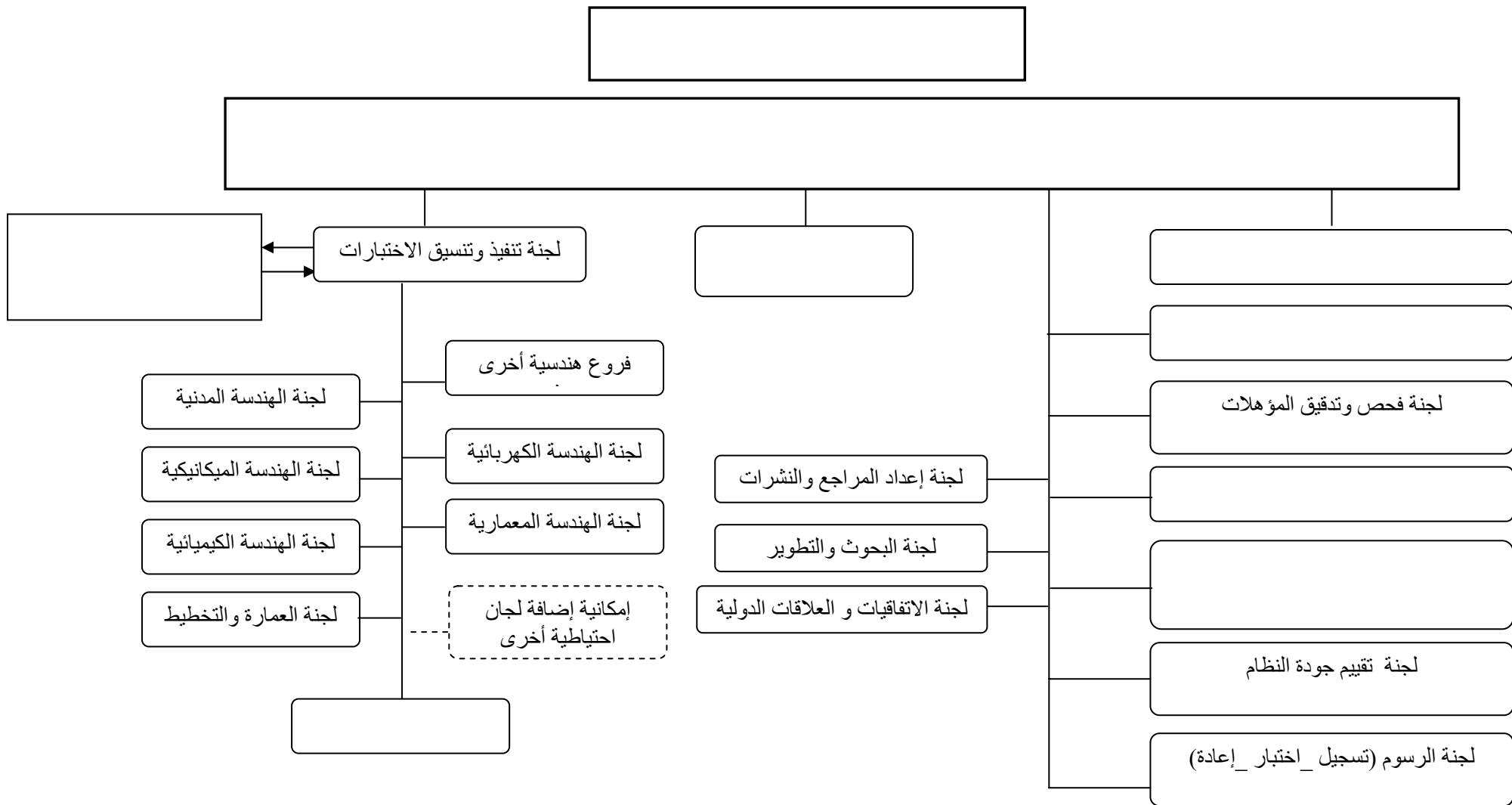
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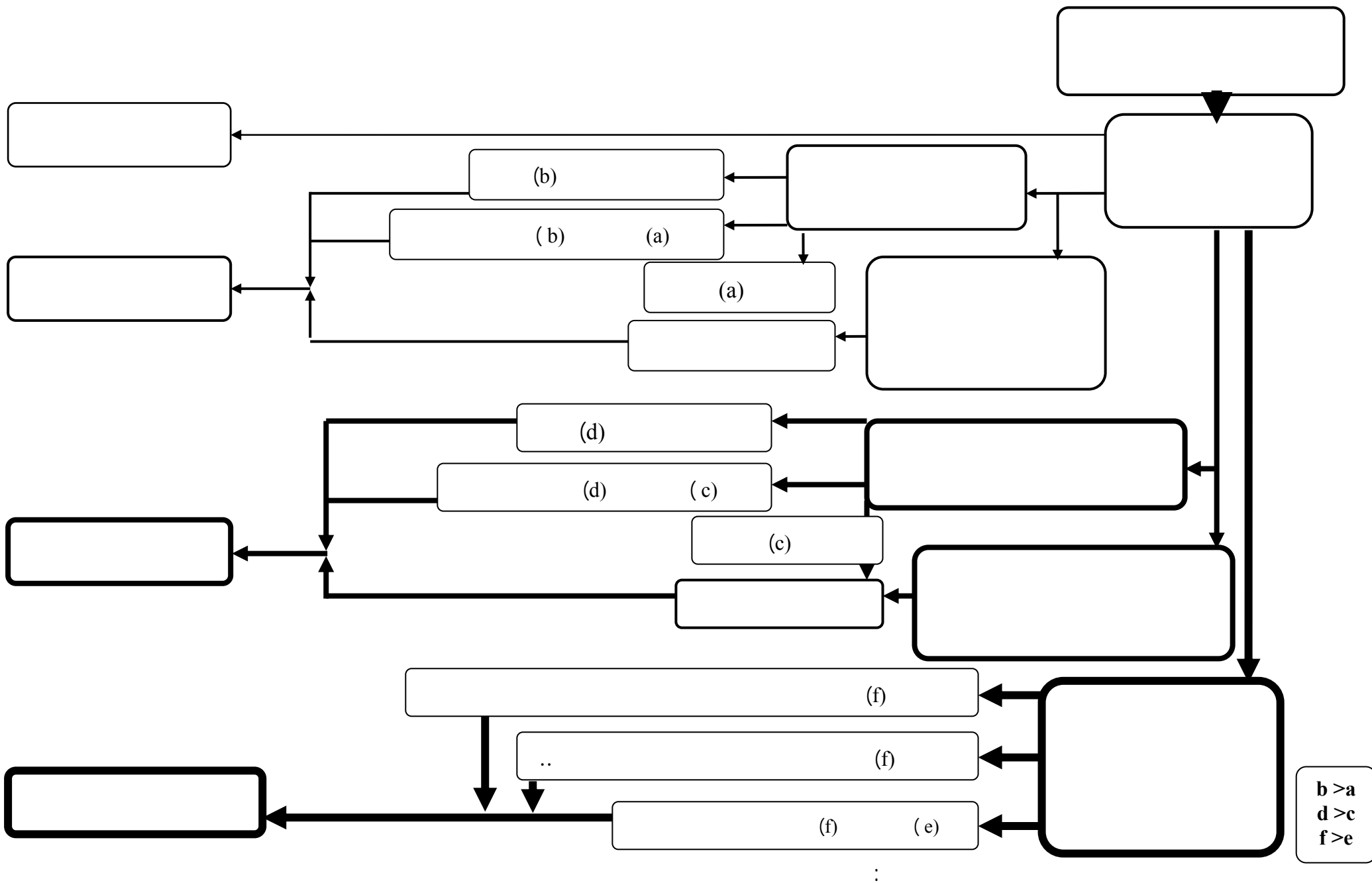
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ECUK	Engineering Council UK	
BER	The Board For the Engineering profession Regulation	
BEP	The Board For the Engineering profession	
RIBA	Royal Institute of British Architects	
QAA	The Quality Assurance Agency	
	National Register	
IPD	Initial Profession Development	
	Bachelor Degree	
	Honors Degree	
	Pass Degree	
	Technical courses	
	Sub-degree level	
SRR	Standards and Routes to Registration	
C.Eng	Chartered Engineer	()
I.Eng	Incorporated Engineer	
Eng. Tech	Engineering Technician	
SPR	Stringent Professional Review	
	accredited 3-year Incorporated Engineer Degree Course	
	Accredited HND Course	
	Accreditation	
	Accredited Engineering Degree	
CPD	Continuing Professional Development	
	System of Licensing	
	ABA, BSc or Barch	
	The RIBA Part 1 Professional Qulification	
	The RIBA 2 Professional Qulification	

	The RIBA Part 3 Examination	
	The Professional Experience and Development Record	
	Professional CV and Professional Experience Evaluation	
	Written Examinations	
	Architectural Education Registration	
	Practical Training	
	Final Architectural Examination	
CTI	Commission des Titres d'Ingenieur	
CNISF	Thé Conseil National des Ingenierus et Scientifiques de France	
	ingenieur Diplome	
	ingenieur reconnu scientifique	
	ingenieur reconnu	
DVT	the Deutscher Verband Technisch-Wissenschaftlicher Vereine	
ZBI	the Zentralverband der Ingenieurvereine	
VDI	the Verein Deutscher Ingenieure	
	University of applied science	
	Diplom – ingenieur (univ/Tu/TH)	
	The Fachhochschulen (FH)	
	Formal process of accreditation	
CNI	the Consiglio Nazionale dei Ingegneri	
OPI	the Ordine Provinciale degli Ingegneri	
CDL	the Corso di Laurea	
CDU	the Corso di Diploma Universitario	

SDE	The Society of Danish Engineers	
DCHEQD	the Danish centre for higher education and quality development	
	Diploma Engineer	
	Graduate Engineer	
	Export Engineer	
	external examiner	
TEE	Technical Chamber of Greece	
	Binary system	
	Diplomatouchos Michanicos	
	Graduate Diploma	
IEI	The Institution of Engineers of Ireland	معهد المهندسين الأيرلندي
NCEA	the National Council for Academic Awards	
	Regional Tech. Colleges	
	Vocational Education Committee Colleges)	
	Eng.Tech IEI	
	A Eng. IEI	
	C.Eng IEI	
NIF	Norske Sivilingeniørers Forening	معهد NIF
NIO	Norges Ingeniør Organisasjon	معهد NIO
PDC	Professional Development Certificate	
CE	Chartered Engineer	
OE	Ordem Dos Engenheiros	
FUP	the Funuacao das Universidades Portuguesas	

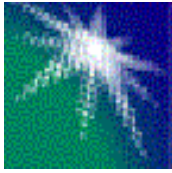
	Engenheiro	
	The upper level	
	Licenciatura	
	Lower level	
	Baccharelato	
IIE	Instituto de la Ingenieria de Espana	
INITE	Instituto de Ingenieros Tecnicos de Espana	معهد المهندسين التقنيين الأسباني
SECAI	Quality evaluation system for engineering programmes	
	superior	
	Technical Engineer	مهندس فني
	National University Quality Assessment Plan	
NCEES	National Council of Examiners for Engineering and Surveying	
NSPE	National Society of Professional Engineers	
ASCE	American Society of Civil Engineers	
NCARB	National Council of Architectural Registration Boards	
AIA	American Institute of Architects	
HBLA	the Hampshire board of licensure for architects	
EAC	Engineering Accreditation Commission	
ABET	Accreditation Board for Engineering and Technology	
TAC	the Technology Accreditation Commission	
NAAB	National Architectural Accrediting Board	
PE	Professional Engineer	
FE	Fundamentals exams	
PE	Principles and Practice exam	
G.Eng	Graduate Engineer	
A.Eng	Associate Engineer	

R.Eng	Registered Engineer	
P.Eng	Professional Engineer	
	PE Agricultural	
	PE Electrical	
	PE Control Systems	
	PE Civil	
	PE Chemical	
	PE Architectural	
	PE Mechanical	
	PE Industrial	
	PE Fire Protection	
	PE Environmental	
	PE Naval Architecture and Marine	
	PE Mining and Mineral	
	PE Metallurgical	
	PE Structural I	
	PE Structural II	
	PE Petroleum	
	PE Nuclear	
	Architect	
	Architecture	
IDP	Intern Development Program	
	Comparison of Examination	
	Comparison of Engineering & Architecture Qualification Aspects	
	Licensing Boards	
	Structural Technology	
	Electrical and Mechanical System	
CCPE	the Canadian Council of Professional Engineers	
CEQB	Canadian Engineering Qualifications Board	
ABE	the Alberta Board of Examiners	
NCARB	National Council of Architectural Registration Boards	

CEAB	the Canadian Engineering Accreditation Board	
CACB	The Canadian Architectural Certification Board	
P.Eng	Professional Engineer	
	confirmatory examinations	
	technical examinations	
	exploratory examinations	
	proficiency examinations	
	qualifying examinations	
PPE	Professional Practice Exam	
APEGBC	Association of Professional Engineers, Geologists and Geophysicists of Alberta	
BEM	The Board of Engineers Malaysia	
IEM	The Institution of Engineers Malaysia	
EAC	Engineering Accreditation Council	هيئة الاعتماد الهندسي
BAM	The Board of Architects Malaysia	
	Graduate Engineer	
PAE	Professional Assessment Examination	
	Corporate Member	
	Engineering research	
	Registered Profession Engineer	
	Principal Examiner	
	Second Examiner	
	Professional Interview	
TPE	Temporary Registered Professional Engineers	
	Registration of Architectural Graduate	
RPA	Registration As Professional Architects	
	Architectural Graduate	
	Registration of Building Drughtsman	
	Malaysia Certificate of Education	
	Registration Committee of the Board	
	Drawing Test	

AECM	Architectural Examination Council Malaysia	
	The part III Professional Practice Examination	
	Oral Examination	
	Written Examination	
	Professional Experience Evaluation Report	
	Professional Casework Submission	
	Architects Act 1967	
	Architects Rules 1996	
	Architects (Scale of Minimum Fees) Rules 1986	
	Uniform Building By- Laws 1984	
	Street, Drainage and Building Act 1974	
	Town and Country Planning Act 1976	
	Standard Form of Contract BAM	
	Standard Form of Sub- Contract BAM	
	Housing Development (Control and Licensing) Act 1966	()
	National Land Code	
	Stratn Titlr Act 1985	
	The Syllabus	
	The Architect Role in Society	
	The Architectural Practice	
	Professional Legislation and Professional Bodie	
	Building Legislation and Regulations	
Gijutsushi	(Gijutsushi)	
STA	Science and Technology Agency	
JCEA	the Japan Consulting Engineers Association	

Kenchikushi	Kenchikushi Ministry of Construction	
RAE	Registered Associate Engineer	
RE	Registered Engineer	
	Second class and first class	
	Senior high school	
KCEA	construction technical field to Korea Construction Engineers Association	الاتحاد الكوري لمهندسي التشييد
	Construction Engineer	
	the Ministry of Construction & Transportation	
	Construction engineer's grade	
	Principal Engineer	
	Senior Engineer	
	Junior Engineer	
	Career Certification	
	Technically qualified Person	
	Career Person with academic degree	
	Career Person	
	Accreditation Evaluation	
	Ranking Evaluation	
	Description and Advice Evaluation	
	Education Course Advisory Service World Wide	
	Self Evaluation	
	Accreditation.	
	Evaluation	
NCAAA	National Commission for Academic Accreditation & Assessment	()
	Self Learning	
	Fundamentals of Engineering	
	Professional Test	



المهنة السعودية للمهندسين
SAUDI COUNCIL OF ENGINEERS



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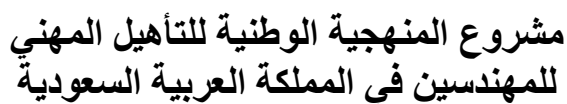
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مدينة الملك عبد العزيز للعلوم والتقنية
King Abdulaziz City for Science
and Technology(KACST)



الهيئة السعودية للمهندسين
Saudi Council of Engineers(SCE)

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باعتبة هذا النموذج وتسليمه إلى جامع البيانات أو إرساله على عنوان الهيئة ص ب ٨٥٠٤١ الرياض ١١٦٩١
للاستفسار يرجى الاتصال على الهاتف ٠١٤٠٣١٤١٤ تحويل ٢٢٥/٢٣٦ أو جوال ٠٥٠٥٤٧٦٢٨٧/٠٥٠٣١٦٠٠١٠

الجامعة:

الكلية: التخصص:

جهة العمل التي ترغب العمل بها: ☐ قطاع حكومي ☐ قطاع خاص

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م	موافق بشدة (٥)	موافق (٤)	محايد (٣)	غير موافق (٢)	غير موافق إطلاقاً (١)
١					المادة العلمية التي تلقيتها كافية لتجعل منك مهندساً منافساً في سوق العمل.
٢					المادة العلمية التي تلقيتها تفي بمتطلبات تخصصك.
٣					تعد العلوم التي درستها حديثة ومواكبة للتطور في مجال تخصصك
٤					هناك بعض المقررات الدراسية لا علاقة لها بتخصصك
٥					.
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١١					ليصبح الخريج مؤهلاً مهنيًا يجب أن يحصل على تدريب مهني كافٍ قبل الممارسة العملية لمهنته.
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- أي تعليق ترغب بإضافته حول العلاقة بين التعليم الجامعي ومتطلبات سوق العمل:

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مشروع المنهجية الوطنية للتأهيل المهني للمهندسين في المملكة العربية السعودية



مدينة الملك عبد العزيز للعلوم والتقنية
King Abdulaziz City for Science
and Technology(KACST)

الهيئة السعودية للمهندسين
Saudi Council of Engineers(SCE)

_____:

_____ (_____) _____:

_____ :**(Professional Engineer)**

_____:

_____ / _____:

_____:

_____ : (_____)

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(يتوفر نسخة من هذا الاستبيان باللغة الإنجليزية)

فضلاً يمكن الإجابة عن هذا الاستبيان:

بتعبئة هذا النموذج وتسليمه إلى جامع البيانات أو إرساله على عنوان الهيئة ص ب ٨٥٠٤١ الرياض ١١٦٩١

للاستفسار يرجى الاتصال على الهاتف ٠١٤٠٣١٤١٤ تحويل ٢٣٦/٢٢٥ أو جوال

٠٥٠٥٤٧٦٢٨٧/٠٥٠٣١٦٠٠١٠

الجامعة.....

الكلية:.....

التخصص: التخصص الدقيق:.....

الدرجة العلمية: ☐ أستاذ ☐ أستاذ مشارك ☐ أستاذ مساعد ☐ محاضر ☐ معيد

الجامعة التي حصلت منها على آخر مؤهل علمي: ☐ سعودية ☐ عربية ☐ الولايات المتحدة وكندا

☐ أوروبا الغربية ☐ أوروبا الشرقية ☐ غير ذلك حدد:.....

- (/) ☐ ☐

إذا كانت الإجابة بنعم يرجى توضيح الدرجة واسم الجهة المانحة

السنة	الجهة المانحة	مسمى الدرجة

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فيما يلي عدد من العبارات نأمل تحديد درجة موافقتك عليها بوضع علامة (√) تحت الخانة المناسبة.

م	العبارة	موافق بشدة (٥)	موافق (٤)	محايد (٣)	غير موافق (٢)	غير موافق إطلاقاً (١)
١	التأهيل المهني يعمل على تطوير قدرات المهندس لمواكبة ثورة التكنولوجيا والعولمة.					
٢	التعليم الهندسي الجامعي في الكلية التي تعمل بها يفي بأغلب متطلبات سوق العمل.					
٣						
٤						
٥	هناك بعض المقررات الدراسية قد لا تخدم التخصص ولا حاجة لوجودها .					
٦	.					
٧	المادة العلمية التي يتلقاها الطالب في مجال تخصصه كافية لتجعل منه منافساً في سوق العمل.					
٨	تعد العلوم التي تقوم بتدريسها حديثة ومواكبة للتطور العلمي .					
٩	.					
١٠						
١١	.					
١٢	.					

- أي تعليق ترغب بإضافته حول العلاقة بين التعليم الجامعي ومتطلبات سوق العمل والتأهيل:

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Saudi Council of Engineers

King Abdul Aziz City for Science and Technology

Systematic National Procedure for Professional Qualifications of Engineers in the Kingdom of Saudi Arabia.

Questionnaire for the Teaching Staff at the Engineering and Architecture Colleges

Dear Sir:

A research team from Saudi Council of Engineers in cooperation with Aramco Company, Institute of Public Administration, and Dar Al-Khaleej Engineering supported by King Abdul-Aziz City for Science and Technology are conducting a study titled "Systematic National Procedure for Professional Qualifications of Engineers in the Kingdom of Saudi Arabia".

The project aims to assess the current professional status of engineers in the Kingdom (status quo), identifying the role of the parties related to employment in the fields of professional qualification of engineers, reviewing Arab and international experiences in the field of professional qualification of engineers, and to devise a suitable systematic qualification procedure and propose a mechanism for implementing the outcomes. The team is hoping that you fill the attached questionnaire very carefully, because of the importance of the data for necessary accomplishment of their mission for the purpose of the development of the engineering career and the engineers, knowing that all information shall be used only to achieve the objectives of the research.

The research team had framed the following definitions to assist in unifying concepts when filling the questionnaire carving after accurateness and credibility of the outcomes (please read it before to start filling-in):

The Engineer: A person who is awarded a B.Sc. or equivalent in engineering by an accredited university, college, institute or equivalent.

The Professional Engineer: A person qualified by a professional body to practice the engineering profession because of his knowledge of mathematical and natural sciences, and the principles and means of engineering analysis and assessment acquired through professional education, practical experience, and qualification programs.

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Rank/Professional Degree: A professional title awarded to an engineer according to the level of his qualification. Professional bodies in accordance with specified principles and criterion usually award it.

Systematic Training: A scheduled training program customized to cope with the requirements of the engineering profession and the job performed by the engineer

The Professional Council (the Professional Body): A body corporate entrusted with establishing the principles, regulations and standards of practicing and developing the profession and conducting the required tests before awarding the professional ranks/degrees.

Thank you for your cooperation,

Research Team Leader

Engr. Saleh Bin Abdul-Rahman Elamr

Saudi Council of Engineers

Note:

Fill this questionnaire and forward it to the concerned person (data collector), or post it to: P.O. Box 85041 Riyadh 11691

For more information please don't hesitate to contact 01/4031414 ext. 236&225 or mobile: 0505476287, or 0503160010

University: ----- College: -----
Specialty: ----- Sub specialty: -----

Academic Title

Professor ☐ Associated Professor ☐ Assistant Professor ☐ Lecturer ☐ Demonstrator ☐

The university from which you have obtained your latest academic qualification:

Saudi ☐ Arab ☐ USA & Canada ☐ West. Europe ☐ East. Europe ☐ Other Pls. specify ☐

- 1- Do you hold a professional Rank (professional certificate/professional license) awarded by a professional body?

| Yes ☐ No ☐

If your answer is yes please specify the degree and the awarded body

Degree Title	Awarded Body	Date

- 2- Do you have any relation with CO-OP training in your college?

| Yes ☐ No ☐

If your answer is yes please specify the following:

The positive sides of the training: -----

The negative sides of the training: -----

- 3- What are the most significant additional skills that may enhance the performance of the basic duties of a student in his domain of specialty? -----

Please specify your degree of agreement to the following sentences by placing (✓) in the appropriate column.

No	Sentence	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
1	Professional qualification leads to develop engineers capability to cope with technology revolution and globalization					
2	The engineering education at your college fulfils the labor market requirements					
3	The university education curriculum must contain issues such as working in team skills and building an integrated personality					
4	It is important to cast on actual practice during the study to qualify students to compete in the labor market.					
5	Some education units may not serve the specialty, they should cease to exist					
6	There is an integral relation between university education and professional qualification					
7	The scientific topics delivered to a student in his field of specialty is sufficient to enable him to compete in the labor market.					
8	The engineering sciences you taught are considered modern and adequate to the scientific development.					
9	It is important to have educational units that introduce the professional ethics and practice.					
10	CO-OP training is very important in bringing together the educational outputs and labor market requirements.					
11	It is important to include in the university education professional lectures presented by specialist from out side the university.					
12	It is important to affiliate in professional organizations to benefit from its professional qualification programs.					

You are welcomed to add any comment or addition pertaining to the relation between university education and labor market requirements in the following space:



مشروع المنهجية الوطنية للتأهيل المهني للمهندسين في المملكة العربية السعودية



مدينة الملك عبد العزيز للعلوم والتقنية
King Abdulaziz City for Science
and Technology (KACST)

الهيئة السعودية للمهندسين
Saudi Council of Engineers (SCE)

السلام عليكم ورحمة الله وبركاته
تقوم الهيئة السعودية للمهندسين وبمشاركة كل من شركة أرامكو السعودية ومعهد الإدارة العامة ودار الخليج للهندسة وبدعم من مدينة الملك عبد العزيز للعلوم والتقنية من خلال فريق بحثي من ذوي الخبرة بدراسة مشروع المنهجية الوطنية للتأهيل المهني للمهندسين في المملكة العربية السعودية
ويهدف المشروع إلى: تقييم الوضع المهني للمهندسين في المملكة وتحديد الدور الذي تقوم به الجهات ذات العلاقة بالتوظيف في مجال التأهيل المهني للمهندسين والوقوف على التجارب العربية والعالمية في مجال التأهيل المهني للمهندسين واستنباط وصياغة منهجية للتأهيل و اقتراح آلية لتطبيق النتائج.
وأن الفريق ليأمل منكم التلطف بتعبئة الاستبيان المرفق بكل دقة وواقعية وذلك لما للمعلومات التي سيحصل عليها الفريق من أهمية بالغة في إنجاز المهمة في سبيل الارتقاء بمهنة الهندسة والمهندسين مع ملاحظة أن جميع المعلومات ستستخدم فقط في تحقيق أهداف البحث، وقد قام الفريق بصياغة التعريفات التالية بهدف توحيد المفاهيم عند تعبئة بنود هذا الاستبيان توخيا لدقة ومصداقية النتائج (نأمل الإطلاع عليها قبل الشروع في تعبئة الاستبيان)
المهندس: هو الشخص الذي حصل على الأقل على درجة البكالوريوس أو ما يعادلها في الهندسة من جامعة أو كلية أو معهد معترف به أو ما يعادلها.

المهندس المهني (Professional Engineer): هو الشخص المؤهل من قبل هيئة مهنية لممارسة مهنة الهندسة بسبب معرفته الخاصة بالعلوم الرياضية والطبيعية ومبادئ وطرق التحليل والتقييم الهندسي والتي اكتسبها عن طريق التعليم المهني والخبرة العملية وبرامج التأهيل.

التأهيل المهني الهندسي: هو مجموعة من المتطلبات والإجراءات التي تتبعها الهيئات المهنية الهندسية للتحقق من كفاءة وقدرة المهندس قبل حصوله على المرتبة المهنية، ويعتمد ذلك على التدريب والممارسة الفعلية لاكتساب الخبرة والكفاءة المهنية.

المرتبة/الدرجة المهنية: لقب مهني يمنح للمهندس حسب مستوى التأهيل ويمنح عادة من الهيئات والجمعيات المهنية وفق أسس ومعايير مهنية محددة.

التدريب المنهجي: برنامج تدريبي مجدول يتفق مع المتطلبات المهنية والوظيفية التي يمارسها المهندس.
الهيئة المهنية (الجمعية المهنية): هي شخصية اعتبارية يناط بها وضع أطر وأسس ومعايير مزاولة المهنة وتطويرها وإجراء الاختبارات لمنح الدرجات المهنية.

رئيس الفريق البحثي
م/صالح بن عبد الرحمن العمرو
الهيئة السعودية للمهندسين

شاكرين ومقدرين لكم حسن تعاونكم ،،،

فضلا يمكن الإجابة عن هذا الاستبيان إما:
١. بتعبئة هذا النموذج وتسليمه إلى جامع البيانات أو إرساله على عنوان الهيئة ص ب ٨٥٠٤١ الرياض ١١٦٩١ أو فاكس ٤٠٣٢٠٧٠
٢. أو تعبئة النموذج الإلكتروني الموجود على موقع الهيئة <http://www.saudieng.org> ويمكن التواصل على البريد: peq@saudieng.org
للاستفسار يرجى الاتصال على الهاتف ٠١٤٠٣١٤١٤ تحويل ٢٢٥/٢٣٦ أو جوال ٠٥٠٣١٦٠٠١٠/٠٥٠٥٤٧٦٢٨٧

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(٧).

المؤهل العلمي الجامعي	سنة الحصول على المؤهل	بلد التخرج
بكالوريوس		
ماجستير		
دكتوراه		

التخصص الرئيسي : ☐ هندسة مدنية ☐ هندسة معمارية ☐ هندسة كهربائية ☐ هندسة ميكانيكية
☐ هندسة كيميائية ☐ هندسة بترول ☐ هندسة حاسب ☐ هندسة صناعية
☐ أخرى (حدد)
التخصص الفرعي (الدقيق إن وجد) :

<p>جهة العمل :</p> <p><input type="checkbox"/> وظيفة حكومية</p> <p>تذكر المرتبة حسب سلم الخدمة المدنية</p> <p>غير ذلك حدد <input type="text"/></p> <p>أو <input type="checkbox"/> موظف قطاع خاص</p> <p>أو <input type="checkbox"/> عمل خاص</p> <p>مستوى الوظيفة الحالية:</p> <p><input type="checkbox"/> إشرافية</p> <p><input type="checkbox"/> تنفيذية</p> <p><input type="checkbox"/> أخرى:</p>	<p>مسمى جهة العمل:</p> <p>الإدارة أو القسم الذي تعمل به:</p> <p>عدد سنوات الخدمة في الوظيفة الحالية: <input type="text"/></p> <p>مكان العمل الحالي (المدينة):</p> <p>الجنسية: <input type="checkbox"/> سعودي</p> <p><input type="checkbox"/> غير سعودي (حدد:</p>
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(✓).

(

مكتبي % ميداني %

٢) وظيفتك الحالية هل هي في الغالب (٥٠% فأكثر).

☐ إدارية ☐ مهنية

٣) إلى أي درجة ترتبط مهام الإدارة التي تعمل بها مع تخصصك ؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٤) ما درجة التوافق بين مسمى وظيفتك الحالية و تخصصك ؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٥) ما درجة التوافق بين مهام عملك الحالي وتخصصك ؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٦) ما هو تقييمك للفرصة المتاحة لك من خلال عملك الحالي للمشاركة في المشاريع الهندسية التي

تدخل ضمن تخصصك ؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٧) في وظيفتك الحالية ما هي نسبة الممارسة المهنية (في مجال تخصصك) ؟

%

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- ☐ ☐
- ☐ ☐
- ☐ ☐

إذا كانت الإجابة بنعم فمكمل الجدول التالي (يمكن إرفاق بيان بالدورات التخصصية):

المدة			طبيعة الدورة		الجهة المنظمة		اسم الدورة
شهر	أسبوع	يوم	خارجية	داخلية	عملي	نظري	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

-

☐ ☐

إذا كانت الإجابة بنعم

٤-١- كم عدد الدورات التي حصلت عليها في تخصصك ؟

٤-٢- كم عدد الدورات التي حصلت عليها في غير تخصصك

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☐ ☐

☐ سنة ☐ سنتين ☐ ثلاث سنوات ☐ أربع سنوات ☐ ست سنوات

-

☐ مقابلة ☐ اختبارات مهنية

☐ اختبارات مهنية ومقابلة معاً ☐ مراجعة الخبرات السابقة الموثقة والمعتمدة والمقابلة معاً.

- (/)
إذا كانت الإجابة بنعم يرجى ذكر الدرجة واسم الجهة المانحة

السنة	مسمى الدرجة

٤- هل استقدت من الدرجة المهنية في الترقيات في عملك؟ ☐ نعم ☐ لا
إذا كانت الإجابة لا اذكر برأيك الأسباب

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٥- فيما يلي عدد من العبارات نأمل تحديد درجة موافقتك عليها بوضع علامة (√) تحت الخانة المناسبة
ملاحظة: التأهيل في العبارات التالية يعني (التأهيل المهني للمهندسين في المملكة العربية السعودية)

م	موافق بشدة (٥)	موافق (٤)	محايد (٣)	غير موافق (٢)	غير موافق إطلاقاً (١)
١					هناك ضرورة ملحة لوجود منهجية وطنية للتأهيل المهني للمهندسين في المملكة
٢					التأهيل يساعد على تطوير الأداء المهني للمهندسين
٣					التأهيل يحد بشكل فعال من الممارسات الخاطئة في مهنة الهندسة
٤					يزداد التنافس الايجابي بين المهندسين عند تطبيق التأهيل
٥					يساهم التأهيل بدرجة كبيرة في الارتقاء بمستوى تنفيذ الأعمال الهندسية
٦					التأهيل يساعد على إيجاد كادر وظيفي خاص بالمهندسين
٧					يساعد التأهيل على إيجاد خبرة وطنية محلية في المجال الهندسي
٨					هناك ضرورة لوجود نظام لأخلاقيات وأدبيات المهن الهندسية وحقوقها وواجباتها
٩					يشترط اجتياز اختبارات التأهيل للحصول على الدرجة المهنية
١٠					يجب توفر حد أدنى من الخبرة العملية للحصول على الدرجة المهنية

م	موافق بشدة (٥)	موافق (٤)	محايد (٣)	غير موافق (٢)	غير موافق إطلاقاً (١)
١١					يكتفى بالمؤهل العلمي (دون الحاجة لحد أدنى من سنوات الخبرة) للتقدم للحصول على الدرجة المهنية
١٢					التعليم الهندسي الجامعي يفي بمتطلبات سوق العمل ولا حاجة للتأهيل
١٣					كل ممارس لمهنة الهندسة في المستقبل يجب أن يحصل على التأهيل
١٤					من المؤكد أن التدريب المنهجي من أهم متطلبات التأهيل المهني الهندسي
١٥					عند تطبيق المنهجية يجب أن يراعى فيها وضع المهندسين من ذوي الخبرة الطويلة كمرحلة انتقالية

٦- أي تعليق ترغب بإضافته حول التأهيل للمهنة للمهندسين:

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اختياري

الاسم: جوال: هاتف مكتب:
بريد إلكتروني:



Saudi Council of Engineers



King Abdul Aziz City for Science and Technology

Systematic National Procedure for Professional Qualifications of Engineers in the Kingdom of Saudi Arabia.

Questionnaire for Engineers

Dear Sir:

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Thank you for your cooperation,,,,,

Research Team Leader

Engr. Saleh Bin Abdul-Rahman Elamr

Saudi Council of Engineers

Note: This questionnaire is available in hard and electronic copies. You may either:

Fill the hard copy and forward it to the concerned person (data collector), or post it to: P O Box 85041 Riyadh 11691 or Fax 01/4032070

Or

Fill the electronic copy available at Saudi Council of Engineers' web site:

<http://www.saudieng.org> , and E-Mail: peq@saudieng.org

For more information please don't hesitate to contact 01/4031414 ext. 236&225. or Mobile : 0505476287, or 0503160010

First: Personal Data

Please answer the following question or place (✓) at the appropriate box.

University academic qualification	Year awarded	University/Institute	Country
Bsc			
Master Degree			
PhD			
<p>Major specialty:</p> <p>Civil <input type="checkbox"/> Architecture <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical <input type="checkbox"/> Chemical <input type="checkbox"/></p> <p>Petroleum <input type="checkbox"/> Computer <input type="checkbox"/> Industrial Other (pls. Specify):.....</p> <p>Sub specialty (if any):</p>			
<p>Employer: <input type="checkbox"/></p> <p>Public sector employee <input type="checkbox"/></p> <p>Rank as per Civil Service standard <input type="checkbox"/></p> <p>Other <input type="text"/></p> <p>Or</p> <p>Private sector employee <input type="checkbox"/></p> <p>Or</p> <p>Private owned business <input type="checkbox"/></p>		<p>Place of work:</p> <p>Department/division:</p> <p>.....</p>	
<p>Level of current position</p> <p>Supervisory <input type="text"/></p> <p>Executive <input type="text"/></p> <p>Other <input type="text"/></p>		<p>Years of experience in your current position <input type="text"/></p> <p>Place of current work (City) <input type="text"/></p> <p>Nationality: Saudi <input type="text"/></p> <p>Non Saudi: Pls. specify <input type="text"/></p>	

Second: Nature of current job

Please answer the following question or place (✓) at the appropriate box.

- 1- What is the percentage of office work in relation to field work in your current employment?

% Field Work % Office Work

- 2- Your current position is almost (50% or more)

Administrative Professional

- 3- To what extent do the tasks in your department are related to your specialty?

V. High High Medium Weak V. Weak

- 4- To what extent is your job title related to your academic specialty?

V. High High Medium Weak V. Weak

- 5- To what extent is your current job related to your academic specialty?

V. High High Medium Weak V. Weak

- 6- What is your assessment to the chances available for you in your current job to participate in engineering projects related to your specialty?

V. High High Medium Weak V. Weak

- 7- What is the percentage of specialty related professional practices in your current position?

%

Third: Training & practical experience

1- Is there a systematic training program for engineers in your organization?

Yes ☐ No ☐

2- Does the qualification and training level in your organization (if exist) related to the employment level?

Yes ☐ No ☐

3- Did you attend any training courses within your specialty in the last five years?

Yes ☐ No ☐

If your answer is yes, please complete the following table (You may enclose a separate list):

Course Title	Organizer	Course Nature		Venue		Duration		
		Theoretical	Practical	Internal	External	Day	Week	Month

4- Did your promotion to a higher-level position contingent on attending training courses?

Yes ☐ No ☐

If answer is yes, please complete the following:

4-1 How many courses related to your specialty you attended?

4-2 How many courses not related to your specialty you attended?

Fourth: Qualification and professional titles/degrees

1- A minimum years of practical experience must be stipulated before a graduate can proceed for a professional title/degree

Yes ☐ No ☐

If your answer is yes, what is the minimum number of years of experience required?

One year ☐ Two yrs ☐ Three yrs ☐ Four yrs ☐ Six yrs ☐

2- Specify the suitable assessment efficient method for awarding professional titles/degrees?

Professional tests ☐ Interviews ☐
Professional tests & interview together ☐ Review of previous accredited experience & interview ☐

3- Do you hold a professional rank (professional certificate/professional license) awarded by a professional body?

Yes ☐ No ☐

If your answer is yes please specify the degree and the awarded body

Degree Title	Awarded Body	Date

4- Do you benefited from your professional title in employment promotions?

Yes ☐ No ☐

If your answer is No what are the reasons in your opinion?.....

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5- Please specify your degree of agreement to the following sentences by placing (✓) in the appropriate column.

No	Sentence	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
1	There is a pressing need for a national systematic procedure for professional qualification of engineers in the Kingdom.					
2	Professional qualification enhances the development of the engineers professional practice.					
3	Professional qualification minimizes erroneous/improper practices in the engineering profession.					
4	Application of professional qualification will augment open positive competition between engineers.					
5	Professional qualification enhances the level of performing engineering works to a great extend.					
6	Professional qualification assists in establishing a special professional career for engineers.					
7	Professional qualification assists in creating an indigenous national expertise in the engineering field					
8	There is a need to establish the ethics/culture of the engineering profession.					
9	It is contingent to pass the qualifications tests to obtain the professional title/degree.					

No	Sentence	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
10	To proceed for a professional title you must have a minimum level of practical experience.					
11	The academic qualification is enough to proceed for professional title regardless of years of experience.					
12	The university education fulfils the labor market requirements, without any need for professional qualification.					
13	Anyone intending to practice the engineering profession in the future, must obtain professional qualification.					
14	Systematic training program is one of the most important requirements of professional qualification.					
15	Engineers of long experience must be considered when applying the qualification system (transitional period).					

6- You are welcomed to add any comment pertaining to the professional qualification of engineers in the following space:

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Optional

For further Communications with Saudi Council of Engineers

Name:..... **Mobile:**.....

E-mail..... **Office Tel:**.....



الهيئة السعودية للمهندسين
Saudi Council of Engineers(SCE)

:

(✓).

المؤهل العلمي	سنة الحصول على المؤهل	بلد التخرج
بكالوريوس		
ماجستير		
دكتوراه		

التخصص الرئيسي : ☐ هندسة مدنية ☐ هندسة معمارية ☐ هندسة كهربائية ☐ هندسة ميكانيكية
☐ هندسة كيميائية ☐ هندسة بترول ☐ هندسة حاسب ☐ هندسة صناعية
☐ أخرى (حدد) :
التخصص الفرعي (الدقيق إن وجد) :

<p>جهة العمل :</p> <p><input type="checkbox"/> وظيفة حكومية</p> <p>تذكر المرتبة حسب سلم الخدمة المدنية</p> <p>غير ذلك حدد</p> <p><input type="checkbox"/> موظف قطاع خاص</p> <p><input type="checkbox"/> عمل خاص</p>	<p>مسمى جهة العمل:</p> <p>مسمى الإدارة أو القسم الذي تشرف عليها:</p>
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<p>عدد السنوات في الوظيفة الإشرافية الحالية:</p> <p>مكان العمل الحالي (المدينة) :</p>	<table border="1"> <thead> <tr> <th>العدد</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>مهندس</td> </tr> <tr> <td></td> <td>فني</td> </tr> <tr> <td></td> <td>غير ذلك</td> </tr> </tbody> </table> <p>كم عدد المهندسين السعوديين بالإدارة التي تشرف عليها؟</p>	العدد			مهندس		فني		غير ذلك
العدد									
	مهندس								
	فني								
	غير ذلك								

:

(✓).

١) ما هو تقييمك للفرص المتاحة للمهندسين العاملين تحت إدارتك في المشاركة في المشاريع الهندسية التي تدخل ضمن تخصصاتهم؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٢) في الإدارة التي تشرفون عليها ما هي نسبة الممارسة المهنية للمهندسين في مجال تخصصاتهم؟ %

٣) ما هي أهم المعوقات المهنية – إن وجدت - التي قد تحد من تطور أداء المهندسين تحت إشرافك؟

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٤) ما هي الحلول و المقترحات من وجهة نظرك للتغلب على تلك المعوقات المهنية؟

.....
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١- ما هي الأساليب التي تتبعها جهة عملك لتطوير الأداء المهني للمهندسين؟

☐ دورات ☐ ندوات ☐ مؤتمرات

☐ لا يوجد ☐ غير ذلك من فضلك حدد :

٢- تطوير الأداء المهني للمهندسين في إدارتك يكون وفقاً :

☐ لحاجة الإدارة ☐ التخصص العلمي للمهندس ☐ الاثنين معاً

-

☐ ☐

إذا كانت الإجابة بنعم نأمل إيضاح ما يلي:

- -

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

٣-٢- ما هي درجة ارتباط ذلك التدريب بالمستوى الوظيفي للمهندسين تحت إشرافك؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

- ☐ ☐

- ☐ راضي جداً ☐ راضي ☐ غير راضي ☐ غير راضي بتاتاً

:

١- من وجهة نظرك ما مدى الحاجة إلى وجود تأهيل مهني للمهندسين في المملكة؟

☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

- ☐ عالية جداً ☐ عالية ☐ متوسطة ☐ ضعيفة ☐ ضعيفة جداً

- ☐ ☐

- ☐ سنة ☐ سنتين ☐ ثلاث سنوات ☐ أربع سنوات ☐ ست سنوات

:

- ☐ مقابلة ☐ اختبارات مهنية

- ☐ اختبارات مهنية ومقابلة معاً ☐ مراجعة الخبرات السابقة الموثقة والمعتمدة والمقابلة معاً.

- ☐ ممتاز ☐ جيد ☐ متوسط

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٦-٢- ما هي الحلول المناسبة برأيك للارتقاء بمستوى الأداء المهني للمهندس السعودي؟

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٧- ما هي أهم المهارات الإضافية التي يمكن أن تساعد المهندس ليقوم بأداء مهامه الأساسية ضمن تخصصه بفاعلية أكثر؟

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م	موافق بشدة (٥)	موافق (٤)	محايد (٣)	غير موافق (٢)	غير موافق إطلاقاً (١)
١					التأهيل يساعد على تطوير الأداء المهني للمهندسين
٢					التأهيل يحد بشكل فعال من الممارسات الخاطئة في مهنة الهندسة
٣					يزداد التنافس الايجابي بين المهندسين عند تطبيق التأهيل
٤					يساهم التأهيل بدرجة كبيرة في الارتقاء بمستوى تنفيذ الأعمال الهندسية
٥					التأهيل يساعد على إيجاد كادر وظيفي خاص بالمهندسين
٦					يساعد التأهيل على إيجاد خبرة وطنية محلية في المجال الهندسي
٧					هناك ضرورة لوجود نظام لأخلاقيات وأدبيات المهن الهندسية وحقوقها وواجباتها
٨					التعليم الهندسي الجامعي فقط يفي بمتطلبات سوق العمل ولا حاجة للتأهيل
٩					كل ممارس لمهنة الهندسة في المستقبل يجب أن يحصل على التأهيل
١٠					من المؤكد أن التدريب المنهجي من أهم متطلبات التأهيل المهني الهندسي
١١					عند تطبيق المنهجية يجب أن يراعى فيها وضع المهندسين ذوي الخبرة الطويلة

٩- أي تعليق ترغب بإضافته حول التأهيل المهني للمهندسين:

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اختياري

الاسم: جوال: هاتف مكتب:
بريد إلكتروني:



Systematic National Procedure for Professional Qualifications of Engineers in the Kingdom of Saudi Arabia.

Questionnaire for the Managers of Engineers

Dear Sir:

A research team from Saudi Council of Engineers in cooperation with Aramco Company, Institute of Public Administration, and Dar Al-Khaleej Engineering supported by King Abdul-Aziz City for Science and Technology are conducting a study titled "Systematic National Procedure for Professional Qualifications of Engineers in the Kingdom of Saudi Arabia".

The project aims to assess the current professional status of engineers in the Kingdom (status quo), identifying the role of the parties related to employment in the fields of professional qualification of engineers, reviewing experiences in the field of professional qualification of engineers, and to devise a suitable systematic qualification procedure and propose a mechanism for implementing the outcomes. The team is hoping that you fill the attached questionnaire very carefully, because of the importance of the data for necessary accomplishment of their mission for the purpose of the development of the engineering career and the engineers, knowing that all information shall be used only to achieve the objectives of the research.

The research team had framed the following definitions to assist in unifying concepts when filling the questionnaire carving after accurateness and credibility of the outcomes (please read it before to start filling-in):

The Engineer: A person who is awarded at Least a B.Sc. or equivalent in engineering by an accredited university, college, institute or equivalent.

The Professional Engineer: A person qualified by a professional body to practice the engineering profession because of his knowledge of mathematical and natural sciences, and the principles and means of engineering analysis and assessment acquired through professional education, practical experience, and qualification programs.

Engineering Professional Qualification: It is a set of requirements and procedures adopted by engineering professional bodies to ensure the efficiency and competence of an engineer before awarding a professional rank. The professional qualifications acquired through training programs and actual practice of the profession.

Rank/Professional Degree: A professional title awarded to an engineer according to the level of his qualification. Professional bodies in accordance with specified principles and criterion usually award it.

Systematic Training: A scheduled training program customized to cope with the requirements of the engineering profession and the job performed by the engineer

The Professional Council (the Professional Body): A body corporate entrusted with establishing the principles, regulations and standards of practicing and developing the profession and conducting the required tests before awarding the professional ranks/degrees. Thank you for your cooperation,,,

Research Team Leader

Engr. Saleh Bin Abdul-Rahman Elamr

Saudi Council of Engineers

Note: This questionnaire is available in hard and electronic copies. You may either:

Fill the hard copy and forward it to the concerned person (data collector), or post it to: P O Box 85041 Riyadh 11691 or Fax 01/4032070

Or

Fill the electronic copy available at Saudi Council of Engineers' web site:

<http://www.saudieng.org> , and E-Mail: peq@saudieng.org

For more information please don't hesitate to contact 01/4031414 ext. 236&225. or Mobile : 0505476287, or 0503160010

First: Personal Data

Please answer the following question or place (✓) at the appropriate box.

University academic qualification	Year awarded	University/Institute	Country								
B.Sc.											
Master Degree											
PhD											
Major specialty:											
Civil <input type="checkbox"/> Architecture <input type="checkbox"/> Electrical <input type="checkbox"/> Mechanical <input type="checkbox"/> Chemical <input type="checkbox"/>											
Petroleum <input type="checkbox"/> Computer <input type="checkbox"/> Industrial <input type="checkbox"/> Other (pls. Specify):.....											
Sub specialty (if any):											
Employer:		Place of work name:									
Public sector employee <input type="checkbox"/>										
Rank as per Civil Service standard <input type="checkbox"/>		Department/division:									
Other <input type="text"/>										
Or											
Private sector employee <input type="checkbox"/>											
Or											
Private owned business <input type="checkbox"/>											
numbers of employees under your supervision		Years of experience in your current supervisory position <input type="text"/>									
<table border="1"><thead><tr><th>Faction</th><th>No</th></tr></thead><tbody><tr><td>Engineers</td><td></td></tr><tr><td>Technican</td><td></td></tr><tr><td>Others</td><td></td></tr></tbody></table>		Faction	No	Engineers		Technican		Others		Place of Current work (City) <input type="text"/>	
Faction	No										
Engineers											
Technican											
Others											
Numbers of Saudi engineers in your Dept. <input type="text"/>											

Second: Nature of current job

Please answer the following question or place (✓) at the appropriate box.

- 1- What is your assessment to the chances available for the engineers working in your department to participate in engineering project related to their specialty?

V. High ☐ High ☐ Medium ☐ Weak ☐ V. Weak ☐

- 2- What is the percentage of (specialty related) professional practice of engineers in your Department?

%

- 3- What are the most significant professional constrains that hinder the performance development of engineers working under your supervision?

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- 4- What are your recommendations /solutions to over come those constrains?

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Third: Training & practical experience

- 1- What are the adopted measures in your organization pertaining to the professional practice development of engineers?

☐ Training Courses ☐ Symposiums ☐ Conferences

☐ N/A ☐ Other (please specify):.....

- 2- Professional practice development of engineers in your department is according to:

☐ Department needs ☐ Engineer's specialty ☐ Both

- 3- Is there a systematic training program for engineers in your organization?

Yes ☐ No ☐

If your answer is yes please clarify the following:

- 3-1 To what extent the engineers in your dept. had professionally benefited from this training?

V. High ☐ High ☐ Medium ☐ Weak ☐ V. Weak ☐

- 3-2 To what extent this training is related to the employment/position level of engineers under your supervision?

V. High ☐ High ☐ Medium ☐ Weak ☐ V. Weak ☐

4- Did the engineer's promotion in your dept contingent on attending training courses?

Yes ☐ No ☐

5- To what extent that you are satisfied with the academic level of newly graduated engineers to fulfill the professional work requirements in your department

V. Satisfied ☐ Satisfied ☐ Medium ☐ Unsatisfied ☐ Completely unsatisfied

Fourth: Professional Qualification

1- To what extent do you think there is a need for a professional qualification scheme for engineers in the Kingdom?

V. High ☐ High ☐ Medium ☐ Weak ☐ V. Weak ☐

2- How do you assess the contribution of the National Professional Qualification Scheme (when applied) in enhancing the engineering profession?

V. High ☐ High ☐ Medium ☐ Weak ☐ V. Weak ☐

3- Is it necessary to stipulate a minimum number of years of practical experience after graduation before applying for a professional title/degree

Yes ☐ No ☐

4- If your answer is yes, what is the minimum number of years required?

One year ☐ Two yrs ☐ Three yrs ☐ Four yrs ☐ Six yrs ☐

5- Specify the suitable assessment method for awarding professional titles/degrees?

Professional tests	<input type="checkbox"/>	Interviews	<input type="checkbox"/>
Professional tests & interview	<input type="checkbox"/>	Review of previous accredited experience & interview	<input type="checkbox"/>

6- To what extent you are satisfied with the professional practice of the Saudi engineers working under your supervision?

Excellent ☐ Good ☐ Medium ☐

6-1 If the answer is medium please specify your reasons:

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6-2 What do you think the suitable solutions to enhance the professional practice of Saudi engineers?

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7- What are the additional skills that may enable engineers to efficiently perform the basic duties within their specialty?

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8- Please specify your degree of agreement to the following sentences by placing (✓) in the appropriate column.

No	Sentence	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
1	Professional qualification enhances the development of the professional practice of engineers					
2	Professional qualification minimizes erroneous/improper practices in the engineering profession					
3	Application of professional qualification will augment positive competition between engineers					
4	Professional qualification enhances the level of performing engineering works to a grate extend					
5	Professional qualification assists in establishing a special professional cadre for engineers					
6	Professional qualification assists in creating an indigenous national expertise in the engineering field					
8	There is a need to establish the ethics/culture of the engineering profession					
8	The university education fulfils the labor market requirements, without any need for professional qualification					
9	Any one intending to practice the engineering profession in the future, must obtain professional qualification					
10	Systematic training program is one of the most important requirements of professional qualification					
11	Engineers of long experience must be considered when applying the qualification system (transitional period)					

- 9- You are welcomed to add any comment pertaining to the professional qualification of engineers in the following space:

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Optional

For further Communications with Saudi Council of Engineers

Name:..... **Mobile:**.....

E-mail:..... **Office Tel:**.....

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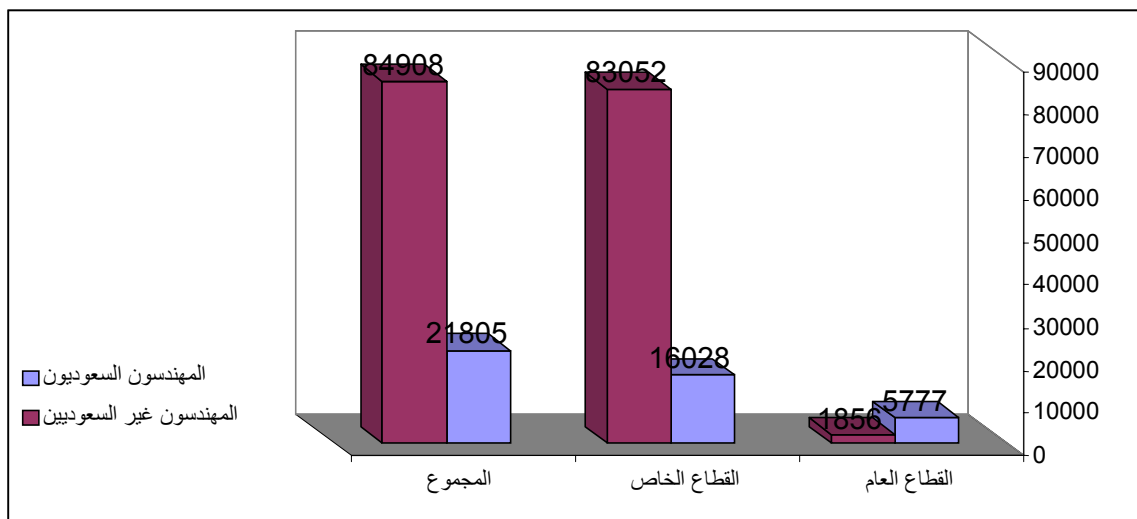
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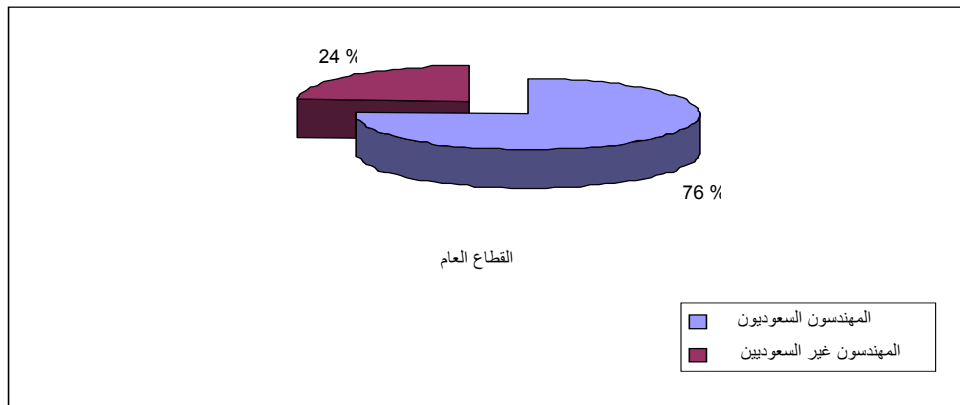
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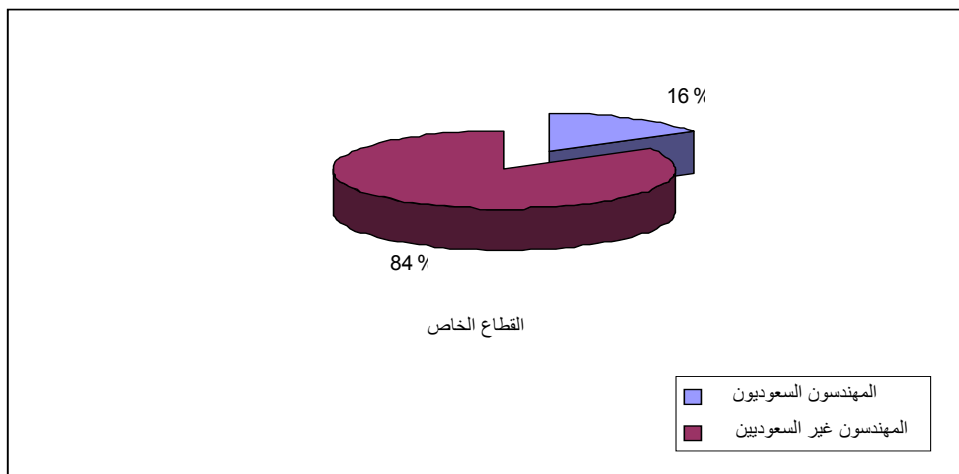
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Principles and Practice exam (PE)		-	
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Engineer In Training(E.I.T)			
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Engineering Council (ECUK)			
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The Quality Assurance Agency (QAA) (ECUK)			
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Profession Development (IPD) Matching Section (Further Learning)			
Professional Review with Interview			
Chartered Engineer (C.ENG)			
Incorporated Engineers (I.ENG)			
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Canadian Engineering Qualifications Board (CEQB) CCPE : - - - - - -		
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(Temporary Registered Professional Engineers(TPE)			

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National Council For Architectural Registration Boards (NCARB)		
Architect Registration Examination(ARE)		
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National Architectural Accrediting Board (NAAB)		
Intern Development Program (IDP) NCARB (IDP)		
- - -) Pre- exam - - - - - : ARE - - - - - / - - - () -		
Registered Architect		
the American Institute of Architects,AIA has four membership classifications: AIA (licensed architects)/Associate AIA (interns, academics, no licensed architects) /FAIA (Fellows of the AIA)/ AIA Emeritus (retired licensed architects) / / /) (

(CCAC)Committee of Canadian Architectural Council		
(NCARB)National Council For Architectural Registration Boards		
(CCAC) (NCARB)		
Canadian Architectural Certification Board (CACB)		
(NAAB) National Architectural Accrediting Board		
Canadian (CERB) Experience Record Book Canadian Intern Architect Program (NCARB)		
Architect Registration Examination (ARE) (NCARB) Canadian Architectural Practice (CAPE) . Examination		
Registered Architect		
Members in the Royal Architectural Institute of Canada: Architect Graduate/ Architect/international Associate/fellow / / /	() (

Royal Institution of British Architects (RIBA)	-	
Architects Registration Board (ARB)	-	
Architects Registration Board (ARB)		
(aBA,BSc or BArch)	-	
(the RIBA Part 1 professional qualification)	-	
(the RIBA (BArch) Part 2 professional qualification)	-	
The Quality Assurance Agency (QAA) (RIBA)		
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(RIBA Examination in Professional Practice and Management (Part 3)		
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(The Professional Experience and Development Record)	-	
(Professional CV and Professional Experience Evaluation)	-	
(Professional Casework)	-	
(Written Examinations)	-	
(The Professional Interview)	-	
Chartered Architect or Registered Architect		
The Royal Institute of British Architects, RIBA has members: Chartered members (ie. qualified architects)/ Student members (on RIBA validated courses)/ Subscriber members (co-professionals)/Fellow عضوية طلاب/معماري تحت التأهيل/ معماري قانوني/زميل		()

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